

DRAWING LIST (1/2)

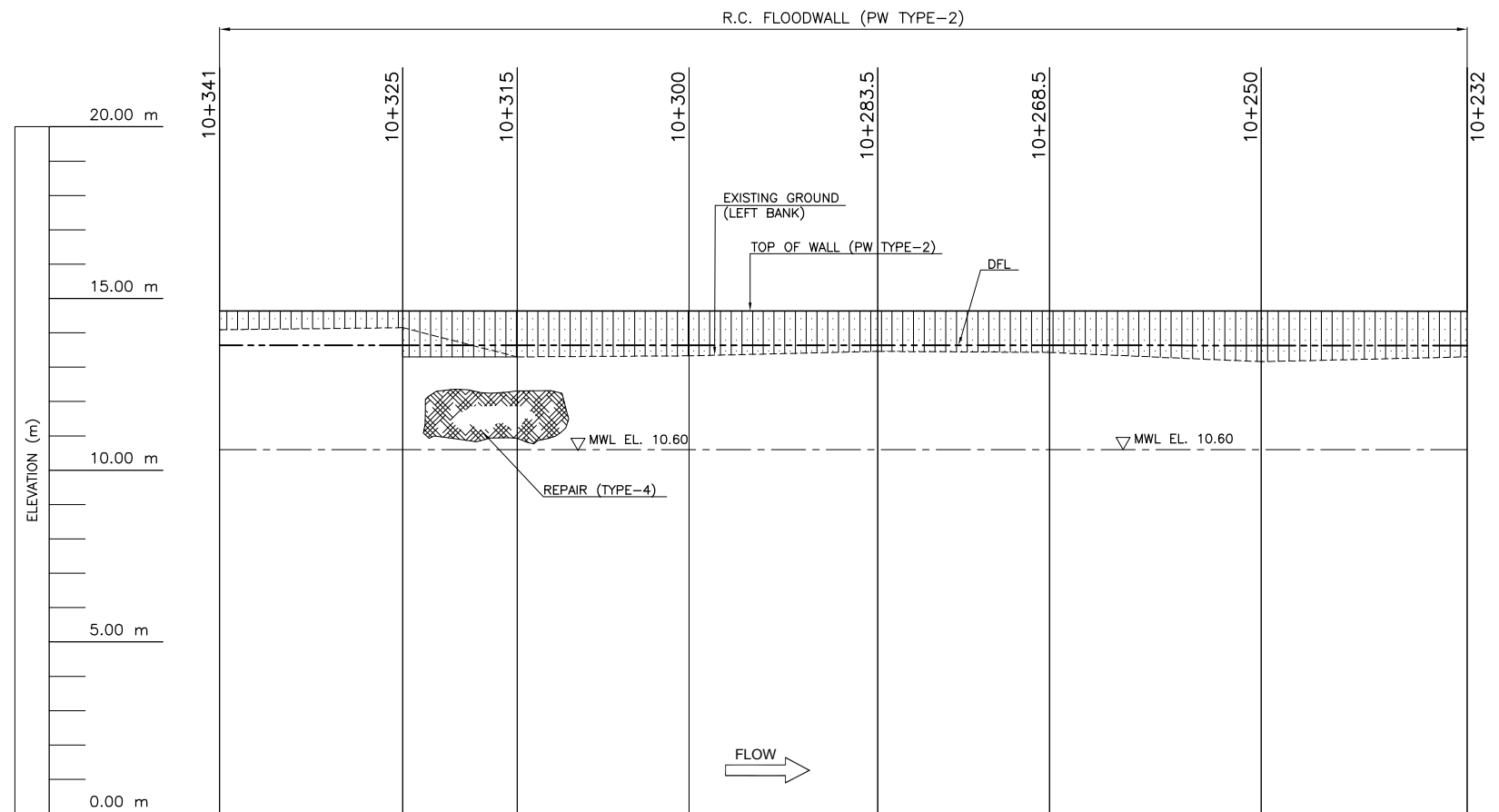
(RIVER STRUCTURES ; UPPER PASIG)

SHEET NO.	DRAWING NO.	NAME OF STRUCTURE	LOCATION	SHEET CONTENTS
1	UP-RS, LE-01	REVETMENT STRUCTURES	UPPER PASIG RIVER	LONGITUDINAL ELEVATION (STA. 10+232 ~ STA. 10+341 LEFT BANK)
2	UP-RS, LE-02			LONGITUDINAL ELEVATION (STA. 10+405 ~ STA. 10+497 LEFT BANK)
3	UP-RS, LE-03			LONGITUDINAL ELEVATION (STA. 11+500 ~ STA. 11+628 LEFT BANK)
4	UP-RS, LE-04			LONGITUDINAL ELEVATION (STA. 12+024 ~ STA. 12+173 LEFT BANK)
5	UP-RS, LE-05			LONGITUDINAL ELEVATION (STA. 13+806 ~ STA. 14+200 LEFT BANK)
6	UP-RS, LE-06			LONGITUDINAL ELEVATION (STA. 14+200 ~ STA. 14+440 LEFT BANK)
7	UP-RS, LE-07			LONGITUDINAL ELEVATION (STA. 15+236~15+424 & 15+443~15+548 LEFT BANK)
8	UP-RS, LE-08			LONGITUDINAL ELEVATION (STA. 15+747 ~ STA. 15+870 LEFT BANK)
9	UP-RS, LE-09			LONGITUDINAL ELEVATION (STA. 15+965 ~ STA. 16+350 LEFT BANK)
10	UP-RS, LE-10			LONGITUDINAL ELEVATION (STA. 16+350 ~ STA. 16+564 LEFT BANK)
11	UP-RS, LE-11			LONGITUDINAL ELEVATION (STA. 10+140 ~ STA. 10+179 RIGHT BANK)
12	UP-RS, LE-12			LONGITUDINAL ELEVATION (STA. 10+956 ~ STA. 11+263 RIGHT BANK)
13	UP-RS, LE-13			LONGITUDINAL ELEVATION (STA.11+610~11+656 & 11+786~11+803 RIGHT BANK)
14	UP-RS, LE-14			LONGITUDINAL ELEVATION (STA. 13+578 ~ STA. 14+000 RIGHT BANK)
15	UP-RS, LE-15			LONGITUDINAL ELEVATION (STA. 14+000 ~ STA. 14+395 RIGHT BANK)
16	UP-RS, LE-16			LONGITUDINAL ELEVATION (STA. 14+835 ~ STA. 14+943 RIGHT BANK)
17	UP-RS, LE-17			LONGITUDINAL ELEVATION (STA. 14+983 ~ STA. 15+075 RIGHT BANK)
18	UP-RS, LE-18			LONGITUDINAL ELEVATION (STA.15+409~15+441 & 15+476~15+494 RIGHT BANK)
19	UP-RS, LE-19			LONGITUDINAL ELEVATION (STA. 15+594 ~ STA. 15+900 RIGHT BANK)
20	UP-RS, LE-20			LONGITUDINAL ELEVATION (STA. 15+900 ~ STA. 16+300 RIGHT BANK)
21	UP-RS, LE-21			LONGITUDINAL ELEVATION (STA. 16+300 ~ STA. 16+472 RIGHT BANK)
22	UP-RS, LE-22			LONGITUDINAL ELEVATION (STA.16+667~16+724 & 16+760~16+843 RIGHT BANK)
23	UP-RS, CS-01			CROSS SECTION (STA. 10+232 ~ STA. 10+315 LEFT BANK)
24	UP-RS, CS-02			CROSS SECTION (STA. 10+325 ~ STA. 10+341 LEFT BANK)
25	UP-RS, CS-03			CROSS SECTION (STA. 10+405 ~ STA. 10+450 LEFT BANK)
26	UP-RS, CS-04			CROSS SECTION (STA. 10+467 ~ STA. 10+497 LEFT BANK)
27	UP-RS, CS-05			CROSS SECTION (STA. 11+500 ~ STA. 11+625 LEFT BANK)
28	UP-RS, CS-06			CROSS SECTION (STA. 11+628 LEFT BANK)
29	UP-RS, CS-07			CROSS SECTION (STA. 12+024 ~ STA. 12+173 LEFT BANK)
30	UP-RS, CS-08			CROSS SECTION (STA. 13+806 ~ STA. 13+950 LEFT BANK)
31	UP-RS, CS-09			CROSS SECTION (STA. 14+000 ~ STA. 14+200 LEFT BANK)
32	UP-RS, CS-10			CROSS SECTION (STA. 14+250 ~ STA. 14+355 LEFT BANK)
33	UP-RS, CS-11			CROSS SECTION (STA. 14+370 ~ STA. 14+440 LEFT BANK)
34	UP-RS, CS-12			CROSS SECTION (STA. 15+236 ~ STA. 15+280.78 LEFT BANK)
35	UP-RS, CS-13			CROSS SECTION (STA. 15+300 ~ STA. 15+400 LEFT BANK)
36	UP-RS, CS-14			CROSS SECTION (STA. 15+424 LEFT BANK)
37	UP-RS, CS-15			CROSS SECTION (STA. 15+443 ~ STA. 15+548 LEFT BANK)
38	UP-RS, CS-16			CROSS SECTION (STA. 15+747 ~ STA. 15+870 LEFT BANK)
39	UP-RS, CS-17			CROSS SECTION (STA. 15+965 ~ STA. 16+050 LEFT BANK)
40	UP-RS, CS-18			CROSS SECTION (STA. 16+100 ~ STA. 16+350 LEFT BANK)
41	UP-RS, CS-19			CROSS SECTION (STA. 16+400 ~ STA. 16+564 LEFT BANK)
42	UP-RS, CS-20			CROSS SECTION (STA. 10+140 ~ STA. 10+179 RIGHT BANK)
43	UP-RS, CS-21			CROSS SECTION (STA. 10+956-A ~ STA. 10+150 RIGHT BANK)
44	UP-RS, CS-22			CROSS SECTION (STA. 11+200 ~ STA. 11+263 RIGHT BANK)
45	UP-RS, CS-23			CROSS SECTION (STA. 11+610 ~ STA. 11+653 RIGHT BANK)
46	UP-RS, CS-24			CROSS SECTION (STA. 11+788 ~ STA. 11+803-A RIGHT BANK)

DRAWING LIST (2/2)

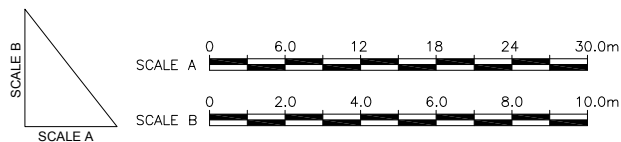
(RIVER STRUCTURES ; UPPER PASIG)

SHEET NO.	DRAWING NO.	NAME OF STRUCTURE	LOCATION	SHEET CONTENTS
47	UP-RS, CS-25	REVETMENT STRUCTURES	UPPER PASIG RIVER	CROSS SECTION (STA. 13+578 ~ STA. 13+750 RIGHT BANK)
48	UP-RS, CS-26			CROSS SECTION (STA. 13+796 ~ STA. 13+850 RIGHT BANK)
49	UP-RS, CS-27			CROSS SECTION (STA. 13+900 ~ STA. 14+050 RIGHT BANK)
50	UP-RS, CS-28			CROSS SECTION (STA. 14+100 ~ STA. 14+223 RIGHT BANK)
51	UP-RS, CS-29			CROSS SECTION (STA. 14+228 ~ STA. 14+350 RIGHT BANK)
52	UP-RS, CS-30			CROSS SECTION (STA. 14+375 ~ STA. 14+395-A RIGHT BANK)
53	UP-RS, CS-31			CROSS SECTION (STA. 14+835 ~ STA. 14+943 RIGHT BANK)
54	UP-RS, CS-32			CROSS SECTION (STA. 14+983 ~ STA. 15+075 RIGHT BANK)
55	UP-RS, CS-33			CROSS SECTION (STA. 15+409 ~ STA. 15+494 RIGHT BANK)
56	UP-RS, CS-34			CROSS SECTION (STA. 15+494 ~ STA. 15+750 RIGHT BANK)
57	UP-RS, CS-35			CROSS SECTION (STA. 15+800 ~ STA. 16+050 RIGHT BANK)
58	UP-RS, CS-36			CROSS SECTION (STA. 16+091 ~ STA. 16+300 RIGHT BANK)
59	UP-RS, CS-37			CROSS SECTION (STA. 16+350 ~ STA. 16+472 RIGHT BANK)
60	UP-RS, CS-38			CROSS SECTION (STA. 16+667 ~ STA. 16+724 RIGHT BANK)
61	UP-RS, CS-39			CROSS SECTION (STA. 16+760 ~ STA. 16+843 RIGHT BANK)



LONGITUDINAL ELEVATION (STA 10+232 ~ 10+341 L-BANK)

SCALE : AB

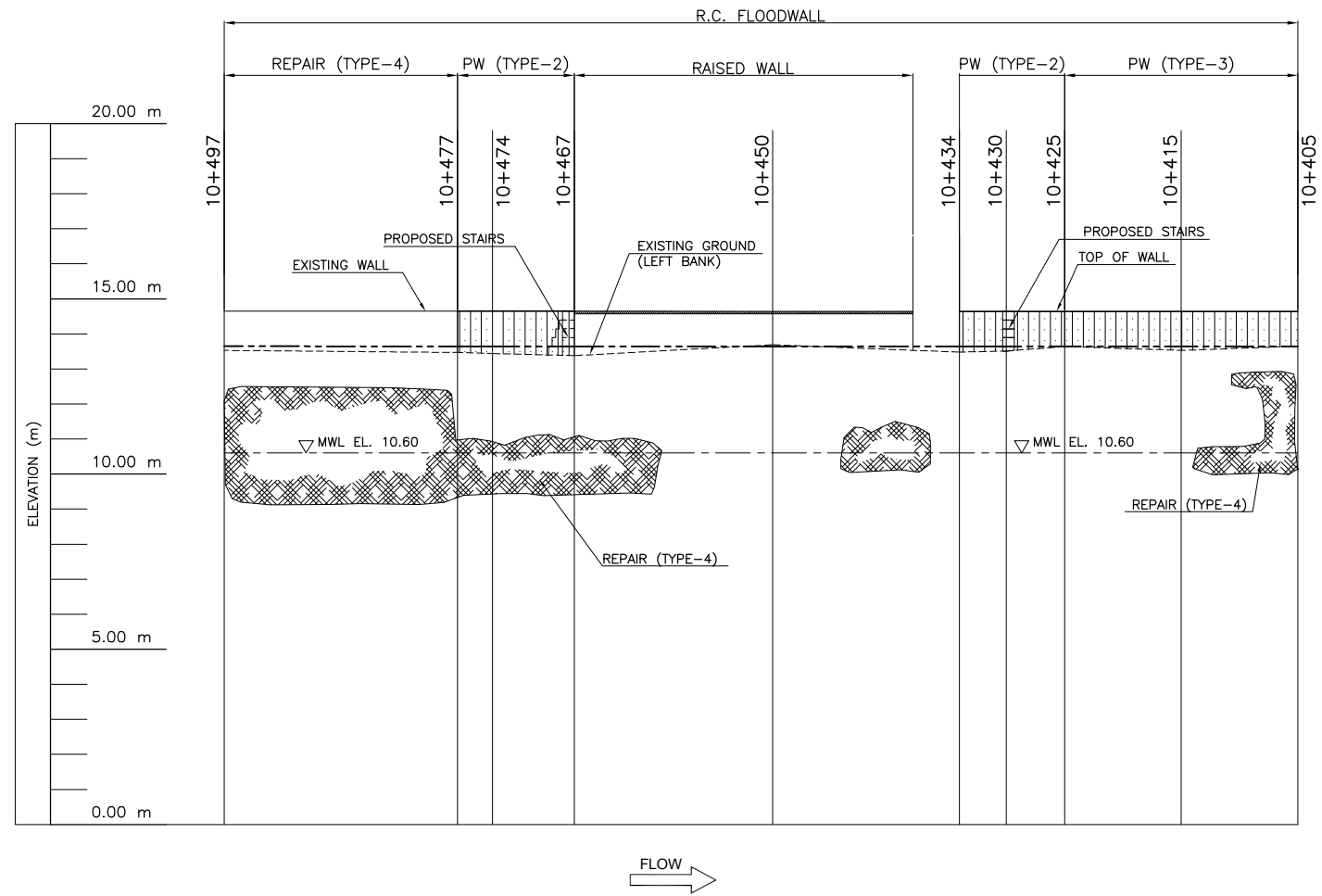


REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

NOTE:
PURSUANT TO SECTION 4 OF ANNEX 'A' OF THE REVISED IMPLEMENTING RULES AND REGULATIONS OF R.A. 9184, APPROVAL BY THE AUTHORIZED DPWH OFFICIALS OF DETAILED ENGINEERING SURVEYS AND DESIGN UNDERTAKEN BY CONSULTANTS NEITHER DIMINISHES THE RESPONSIBILITY OF THE LATTER FOR THE TECHNICAL INTEGRITY OF THE SURVEYS AND DESIGN NOR TRANSFER ANY PART OF THAT RESPONSIBILITY TO THE APPROVING OFFICIALS.

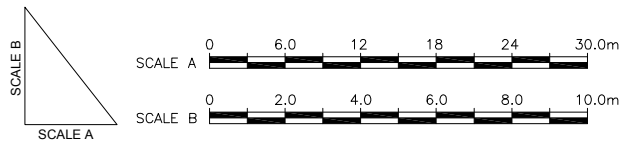
SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN			REPUBLIC OF THE PHILIPPINES				PROJECT & LOCATION	SHEET CONTENTS	SHEET NO.
	DESIGNED BY:	CHECKED BY:		REVIEWED BY:	RECOMMENDING APPROVAL :	PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA	LONGITUDINAL ELEVATION STA 10+232 ~ STA 10+341 LEFT BANK		
	EIJI MOKI STRUCTURAL ENGINEER I	TOSHIKI KAWAKAMI THE CHECKER		SHUJI KAKU TEAM LEADER	PERFECTO L. ZAPLAN, JR. CHIEF, HYDRAULIC DIVISION, BOD				PATRICK B. GATAN PROJECT DIRECTOR PMO - MFCP



LONGITUDINAL ELEVATION (STA 10+405 ~ 10+497 L-BANK)

SCALE : AB



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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN



DESIGNED BY: EIJI MOKI
STRUCTURAL ENGINEER I

CHECKED BY: TOSHIKI KAWAKAMI
THE CHECKER

SUBMITTED BY: SHUJI KAKU
TEAM LEADER



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS
AND HIGHWAYS

REPUBLIC OF THE PHILIPPINES

REVIEWED BY: PERFECTO L. ZAPLAN, JR.
CHIEF, HYDRAULIC DIVISION, BOD

RECOMMENDING APPROVAL: PATRICK B. GATAN
PROJECT DIRECTOR
PMO - MFCP

GILBERTO S. REYES
DIRECTOR
BOD

SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY

APPROVED BY: RAUL C. ASIS
UNDERSECRETARY
FOR TECHNICAL SERVICES

SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY

ROGELIO L. SINGSON
SECRETARY

PROJECT & LOCATION

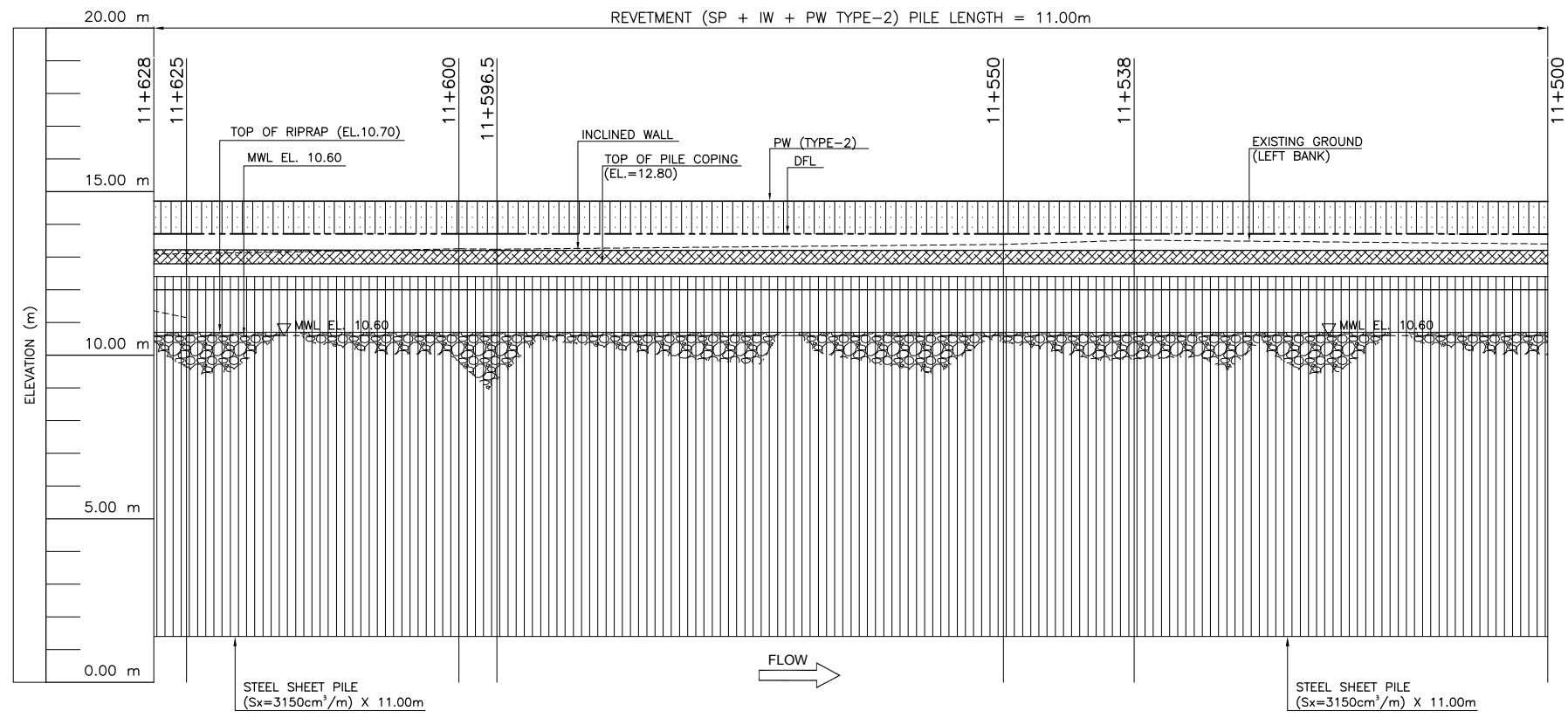
PASIG-MARIKINA
RIVER CHANNEL
IMPROVEMENT
PROJECT (PHASE III),
METRO MANILA

SHEET CONTENTS

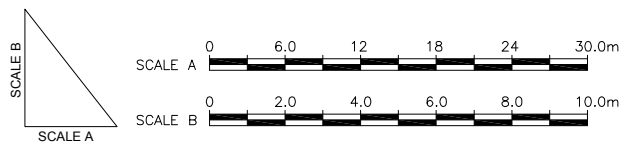
LONGITUDINAL ELEVATION
STA 10+405 ~ STA 10+497
LEFT BANK

SHEET NO.

UP-RS
LE 02



LONGITUDINAL ELEVATION (STA 11+500 ~ 11+628 L-BANK)
SCALE : AB

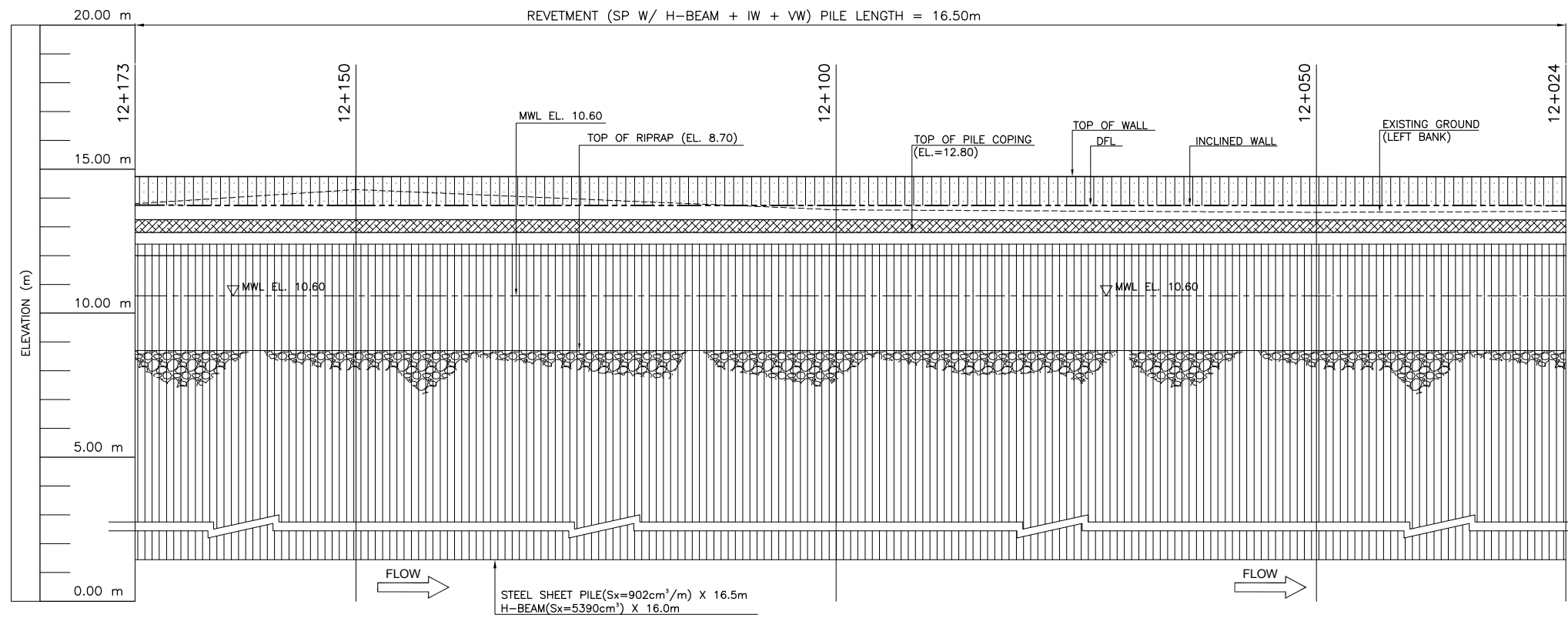


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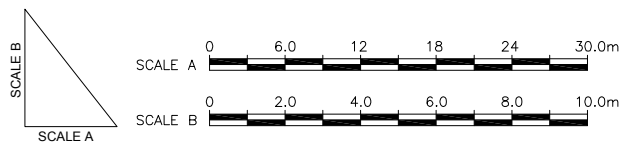
SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN			REPUBLIC OF THE PHILIPPINES				PROJECT & LOCATION	SHEET CONTENTS	SHEET NO.
	DESIGNED BY:	CHECKED BY:	SUBMITTED BY:	REVIEWED BY:	RECOMMENDING APPROVAL :	APPROVED BY:	PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA	LONGITUDINAL ELEVATION STA 11+500 ~ STA 11+628 LEFT BANK	
	EIJI MOKI STRUCTURAL ENGINEER I	TOSHIKI KAWAKAMI THE CHECKER	SHUJI KAKU TEAM LEADER	PERFECTO L. ZAPLAN, JR. CHIEF, HYDRAULIC DIVISION, BOD	PATRICK B. GATAN PROJECT DIRECTOR PMO - MFCP	GILBERTO S. REYES DIRECTOR BOD			



LONGITUDINAL ELEVATION (STA 12+024 ~ 12+173 L-BANK)

SCALE : AB



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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN



DESIGNED BY: EIJI MOKI
STRUCTURAL ENGINEER I

CHECKED BY: TOSHIKI KAWAKAMI
THE CHECKER

SUBMITTED BY: SHUJI KAKU
TEAM LEADER



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS
AND HIGHWAYS

REPUBLIC OF THE PHILIPPINES

REVIEWED BY: PERFECTO L. ZAPLAN, JR.
CHIEF, HYDRAULIC DIVISION, BOD

RECOMMENDING APPROVAL: PATRICK B. GATAN
PROJECT DIRECTOR
PMO - MFCP

GILBERTO S. REYES
DIRECTOR
BOD

SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY

RAUL C. ASIS
UNDERSECRETARY
FOR TECHNICAL SERVICES

APPROVED BY: ROGELIO L. SINGSON
SECRETARY

PROJECT & LOCATION

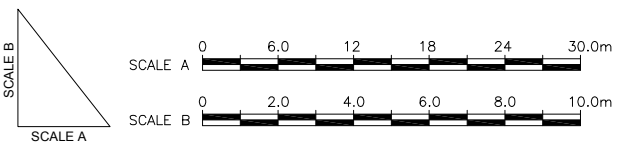
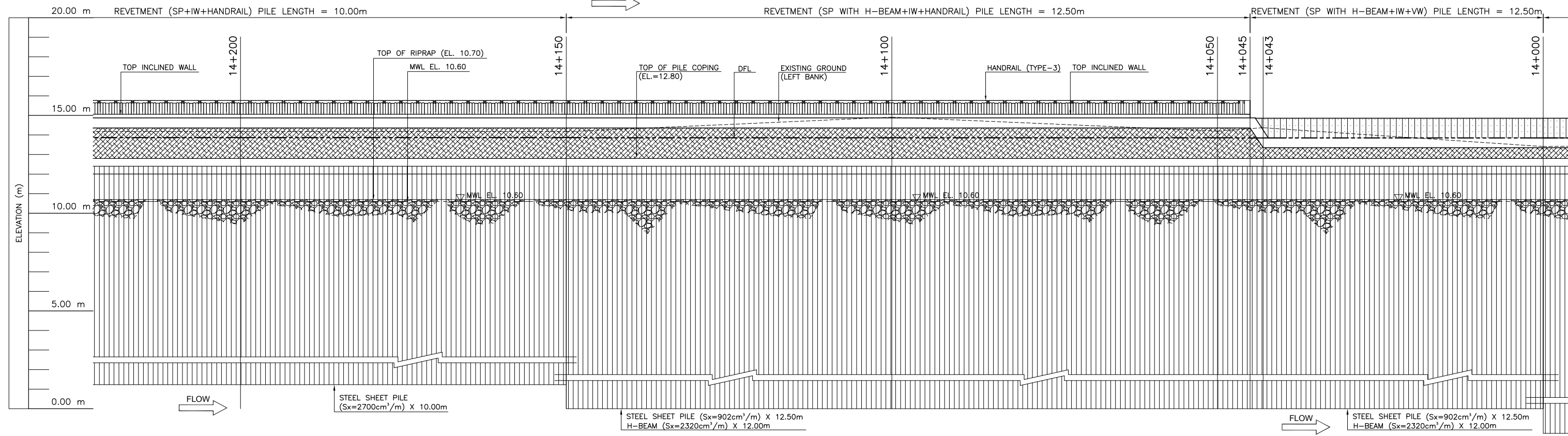
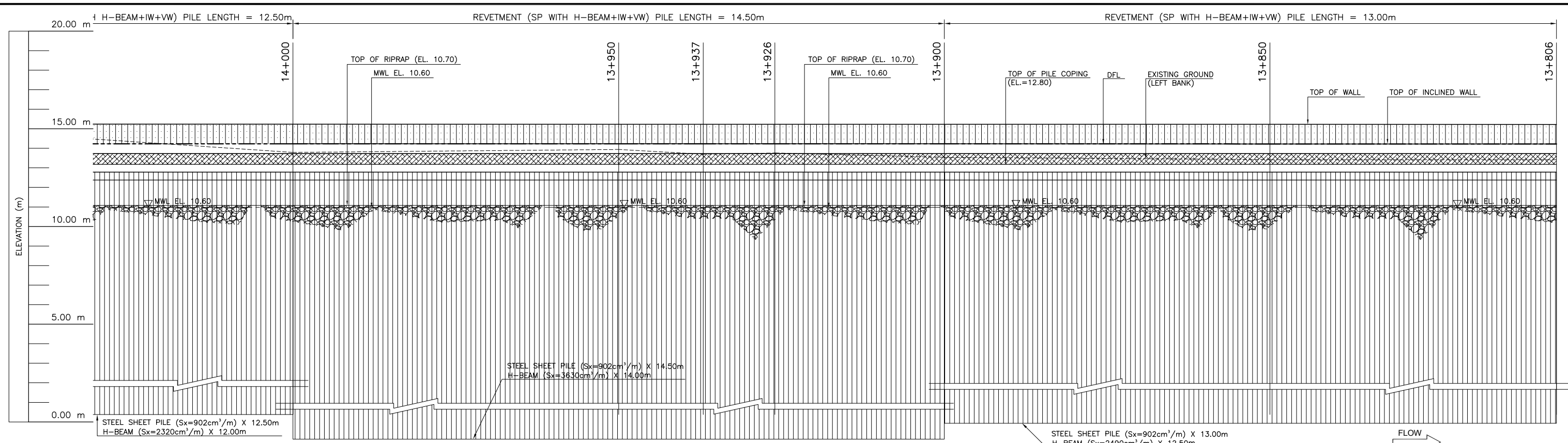
PASIG-MARIKINA
RIVER CHANNEL
IMPROVEMENT
PROJECT (PHASE III),
METRO MANILA

SHEET CONTENTS

LONGITUDINAL ELEVATION
STA 12+024 ~ STA 12+173
LEFT BANK

SHEET NO.

UP-RS
LE 04



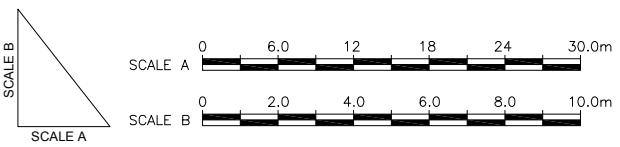
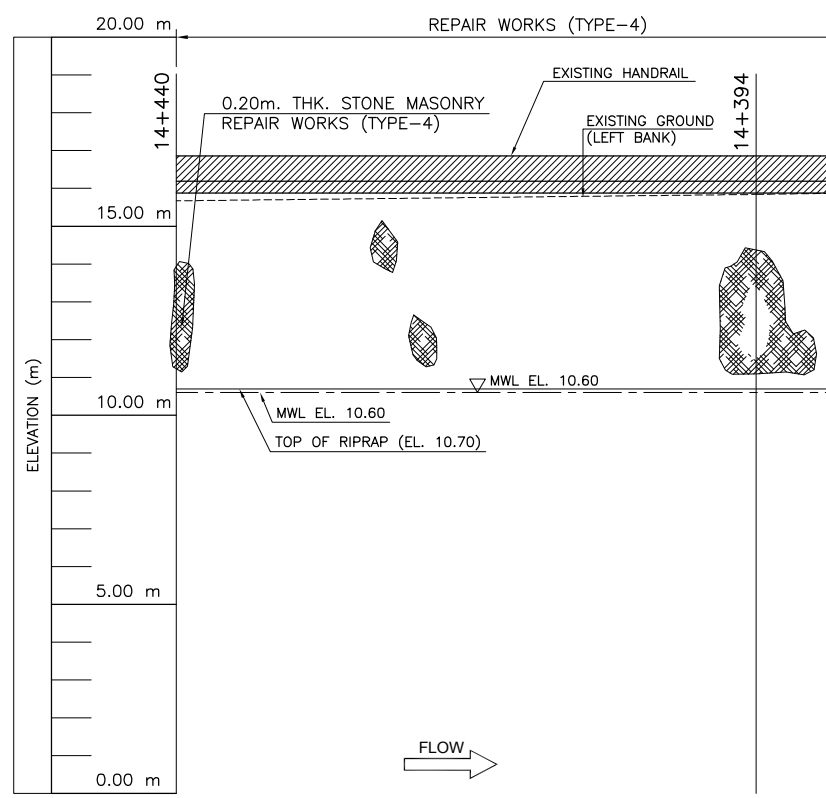
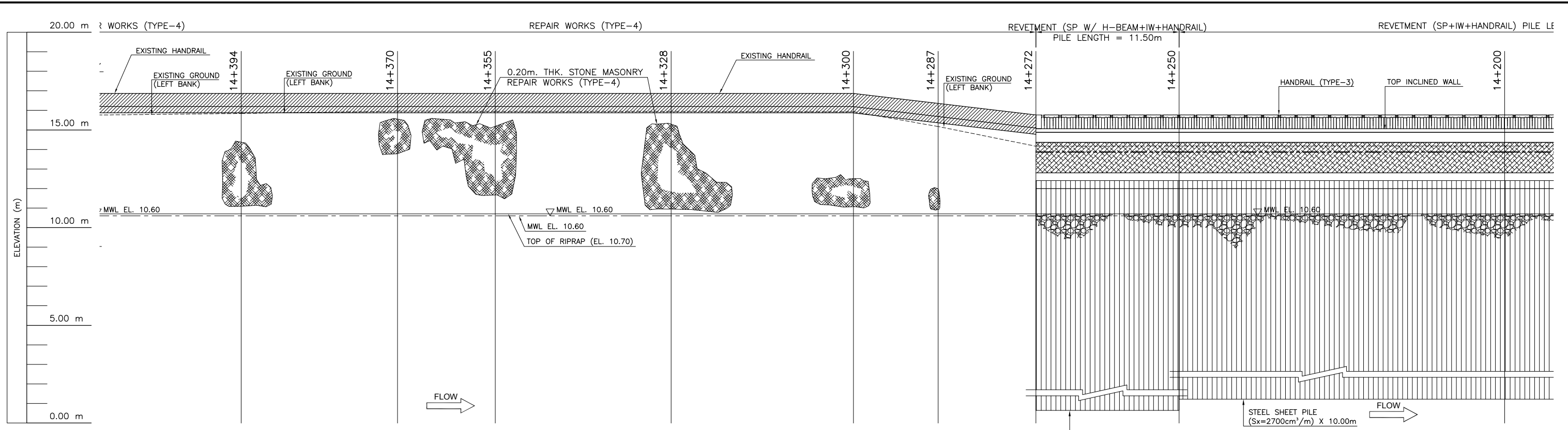
LONGITUDINAL ELEVATION (STA 13+806 ~ 14+200 L-BANK)
SCALE : AB

REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

NOTE:
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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN			REPUBLIC OF THE PHILIPPINES				PROJECT & LOCATION		SHEET CONTENTS		SHEET NO.
	DESIGNED BY:	CHECKED BY:	SUBMITTED BY:	REVIEWED BY:	RECOMMENDING APPROVAL:	APPROVED BY:		PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA	LONGITUDINAL ELEVATION STA 13+806 ~ STA 14+200 LEFT BANK		
	EIJI MOKI STRUCTURAL ENGINEER I	TOSHIKI KAWAKAMI THE CHECKER	SHUJI KAKU TEAM LEADER	PERFECTO L. ZAPLAN, JR. CHIEF, HYDRAULIC DIVISION, BOD	PATRICK B. GATAN PROJECT DIRECTOR PMO - MFCP	GILBERTO S. REYES DIRECTOR BOD	SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY RAUL C. ASIS UNDERSECRETARY FOR TECHNICAL SERVICES				SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY ROGELIO L. SINGSON SECRETARY



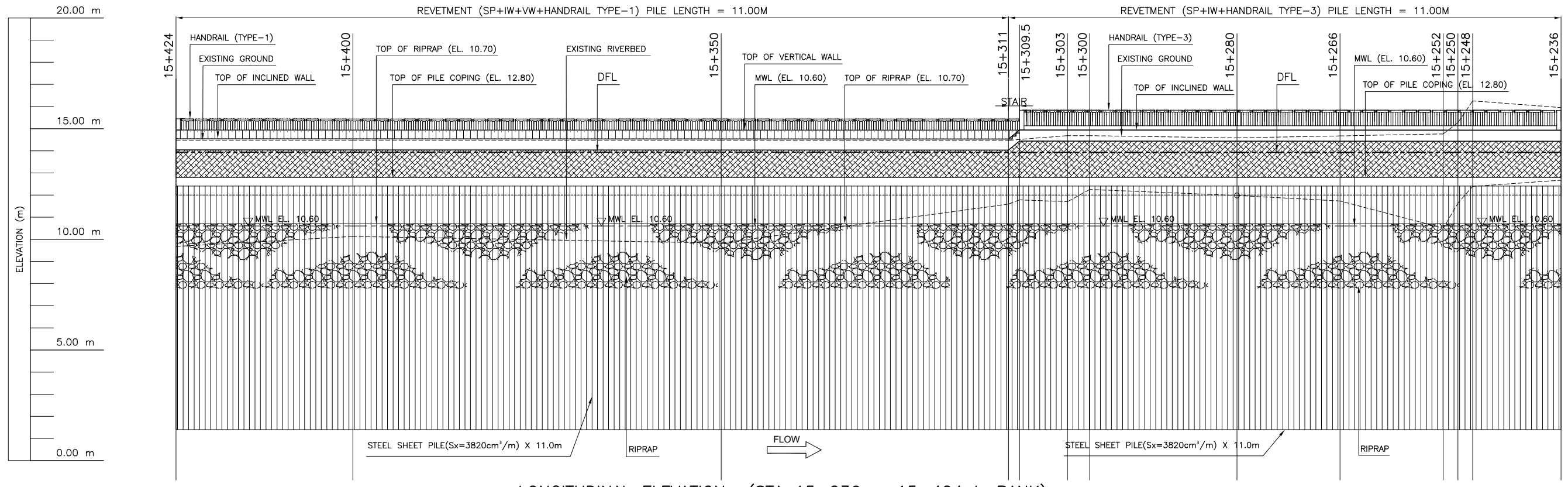
LONGITUDINAL ELEVATION (STA 14+200 ~ 14+440 L-BANK)
SCALE : AB

REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

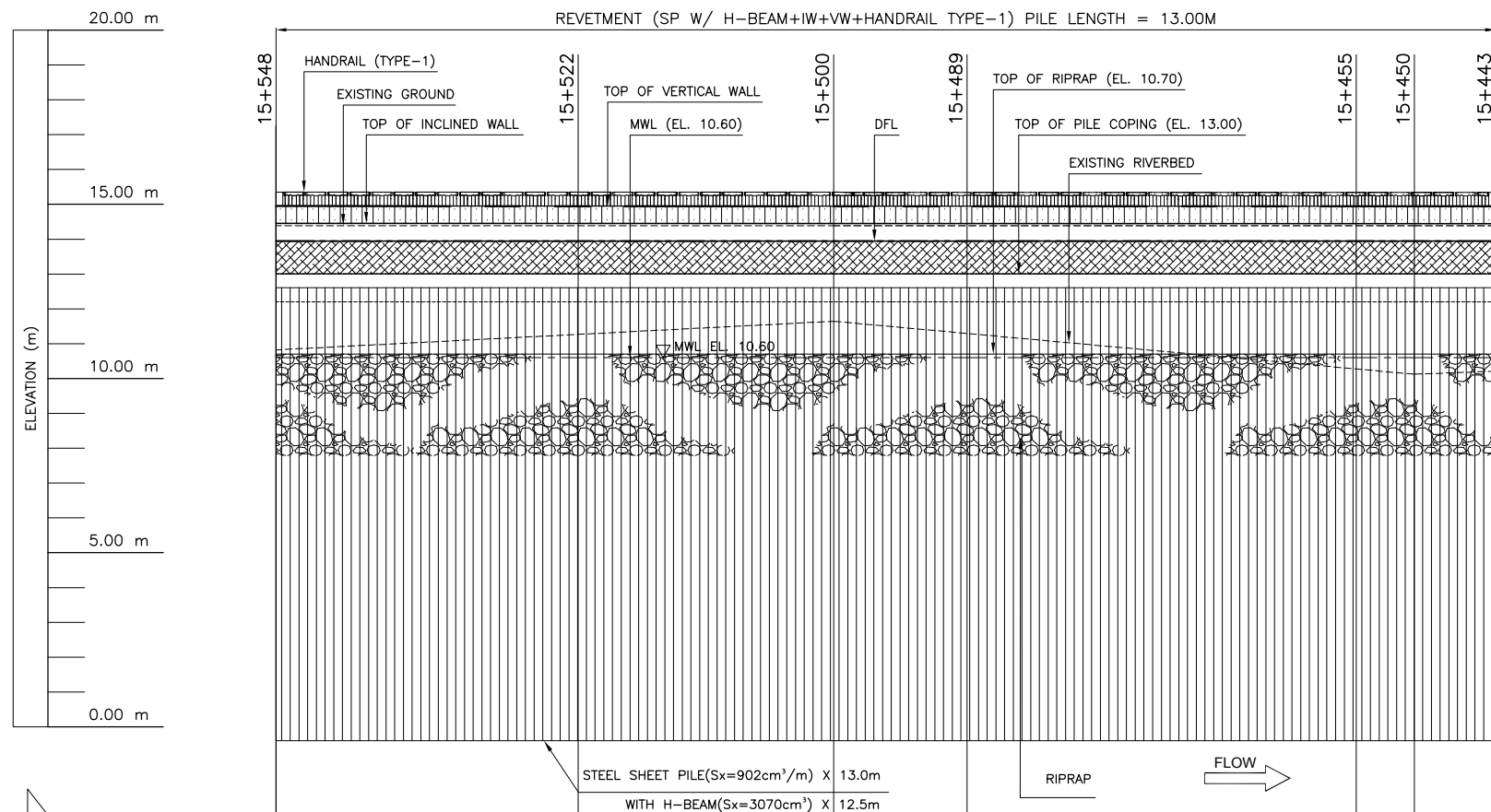
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TEAM LEADER

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	EIJI MOKI STRUCTURAL ENGINEER I	TOSHIKI KAWAKAMI THE CHECKER	SHUJI KAKU TEAM LEADER	PERFECTO L. ZAPLAN, JR. CHIEF, HYDRAULIC DIVISION, BOD	PATRICK B. GATAN PROJECT DIRECTOR PMO - MFCP	GILBERTO S. REYES DIRECTOR BOD	SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY RAUL C. ASIS UNDERSECRETARY FOR TECHNICAL SERVICES				SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY ROGELIO L. SINGSON SECRETARY



LONGITUDINAL ELEVATION (STA 15+236 ~ 15+424 L-BANK)
SCALE : AB



LONGITUDINAL ELEVATION (STA 15+443 ~ 15+548 L-BANK)
SCALE : AB

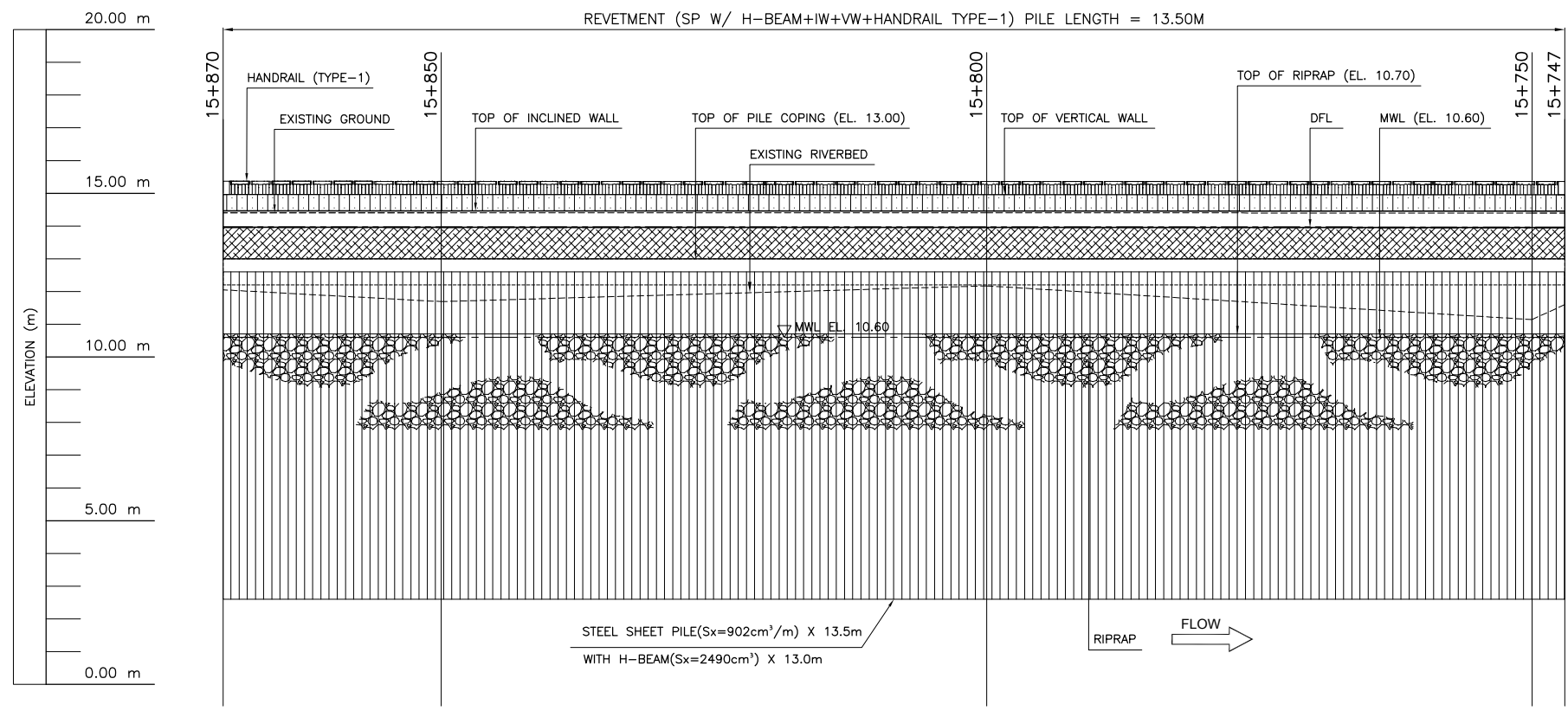


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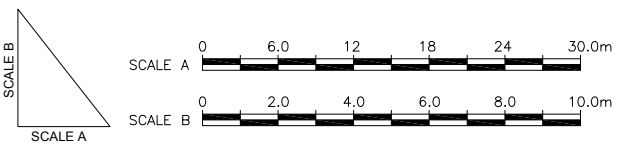
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JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN			REPUBLIC OF THE PHILIPPINES				PROJECT & LOCATION		SHEET CONTENTS		SHEET NO.
	DESIGNED BY:	CHECKED BY:	SUBMITTED BY:	REVIEWED BY:	RECOMMENDING APPROVAL:		APPROVED BY:		PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA	LONGITUDINAL ELEVATION (STA 15+236 ~ STA 15+424) (STA 15+443 ~ STA 15+548) LEFTBANK	
	EIJI MOKI STRUCTURAL ENGINEER I	TOSHIKI KAWAKAMI THE CHECKER	SHUJI KAKU TEAM LEADER	PERFECTO L. ZAPLAN, JR. CHIEF, HYDRAULIC DIVISION, BOD	PATRICK B. GATAN PROJECT DIRECTOR PMO - MFCP	GILBERTO S. REYES DIRECTOR BOD	RAUL C. ASIS UNDERSECRETARY FOR TECHNICAL SERVICES	ROGELIO L. SINGSON SECRETARY			



LONGITUDINAL ELEVATION (STA 15+747 ~ 15+870 L-BANK)
SCALE : AB

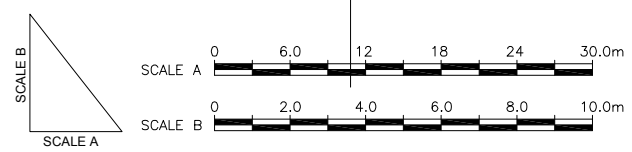
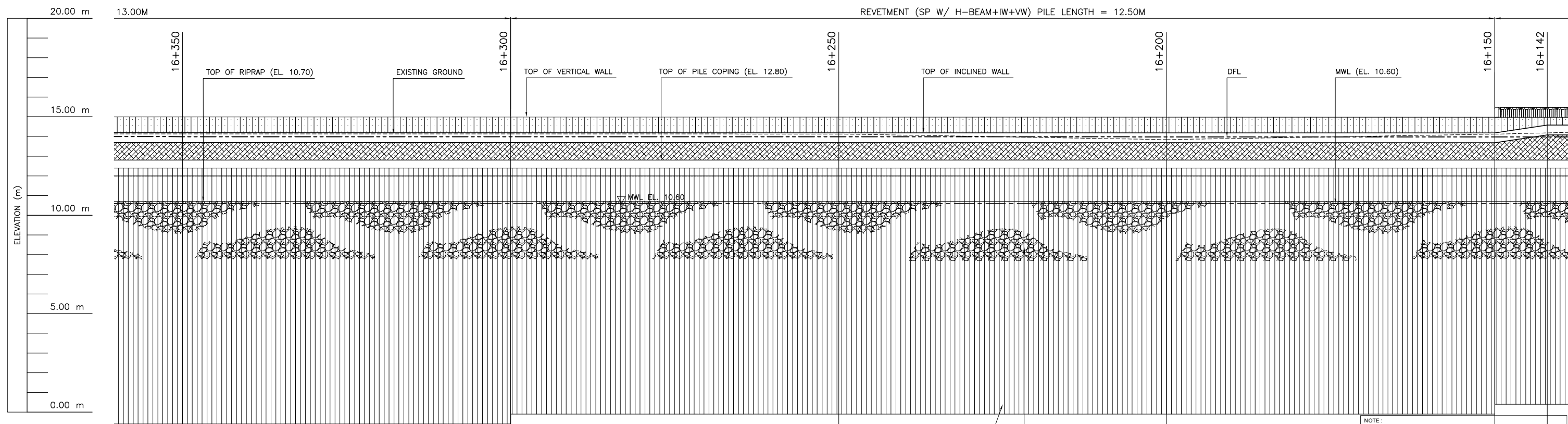
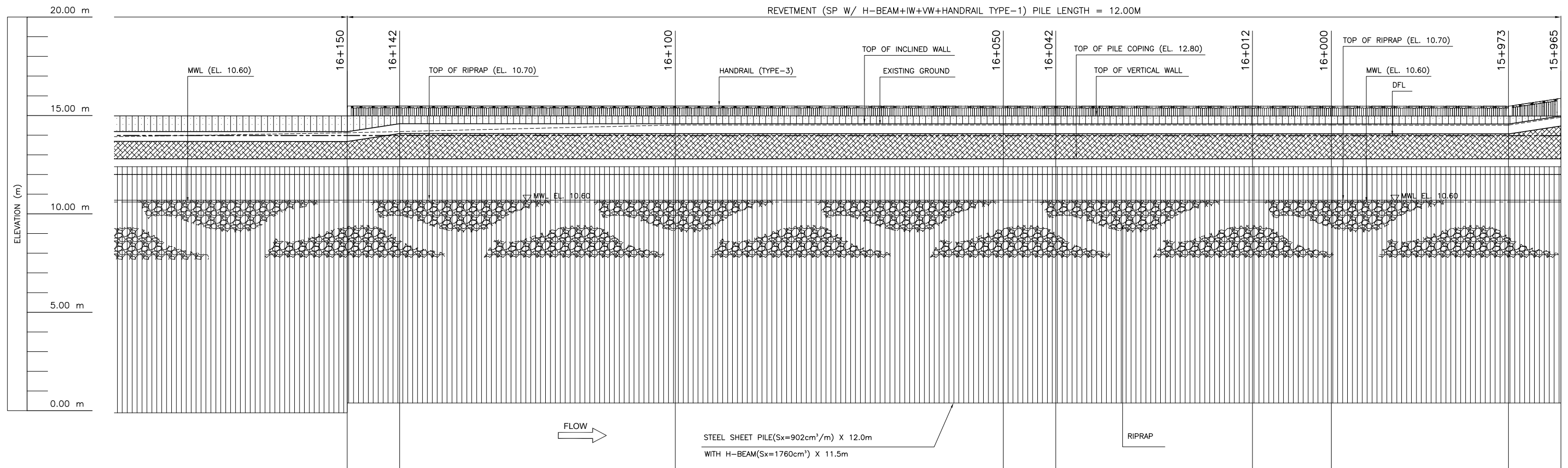


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NOTE:
PURSUANT TO SECTION 4 OF ANNEX "A" OF THE REVISED IMPLEMENTING RULES AND REGULATIONS OF R.A. 9184, APPROVAL BY THE AUTHORIZED DPWH OFFICIALS OF DETAILED ENGINEERING SURVEYS AND DESIGN UNDERTAKEN BY CONSULTANTS NEITHER DIMINISHES THE RESPONSIBILITY OF THE LATTER FOR THE TECHNICAL INTEGRITY OF THE SURVEYS AND DESIGN NOR TRANSFER ANY PART OF THAT RESPONSIBILITY TO THE APPROVING OFFICIALS.

SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN 			REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS 				PROJECT & LOCATION PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA		SHEET CONTENTS LONGITUDINAL ELEVATION STA 15+747 ~ STA 15+870 LEFTBANK	SHEET NO.
DESIGNED BY: EIJI MOKI <small>STRUCTURAL ENGINEER I</small>	CHECKED BY: TOSHIKI KAWAKAMI <small>THE CHECKER</small>	SUBMITTED BY: SHUJI KAKU <small>TEAM LEADER</small>	REVIEWED BY: PERFECTO L. ZAPLAN, JR. <small>CHIEF, HYDRAULIC DIVISION, BOD</small>	RECOMMENDING APPROVAL: PATRICK B. GATAN <small>PROJECT DIRECTOR PMO - MFCP</small>	GILBERTO S. REYES <small>DIRECTOR BOD</small>	APPROVED BY: SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY RAUL C. ASIS <small>UNDERSECRETARY FOR TECHNICAL SERVICES</small>	SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY ROGELIO L. SINGSON <small>SECRETARY</small>			



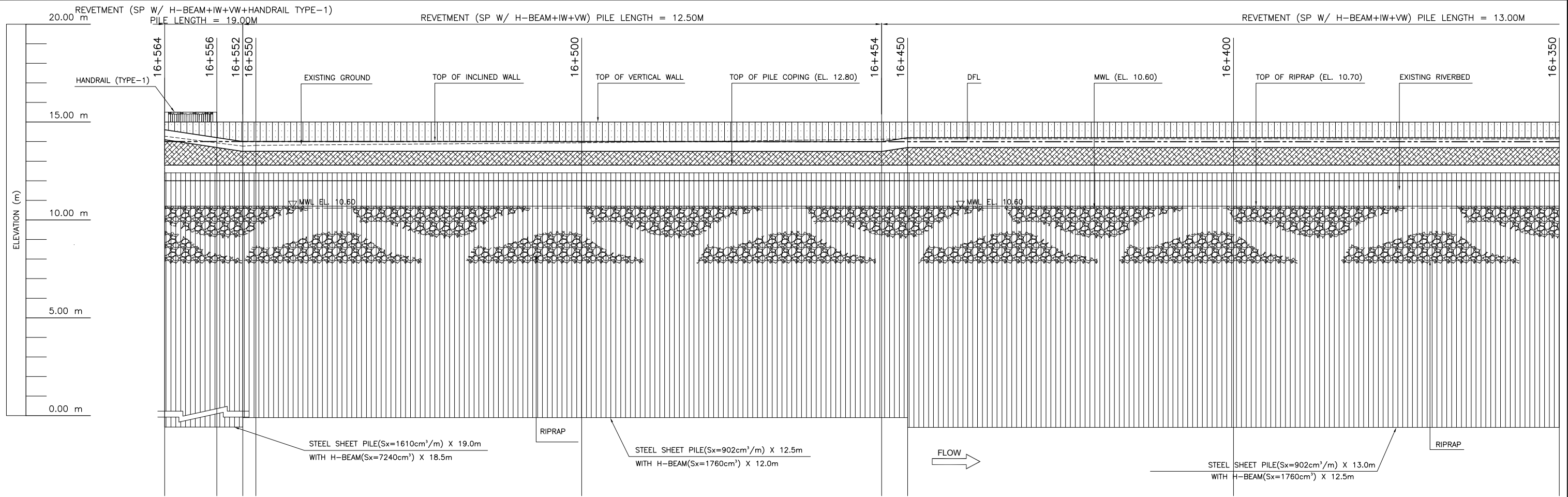
LONGITUDINAL ELEVATION (STA 15+965 ~ 16+350 L-BANK)
SCALE : AB

REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

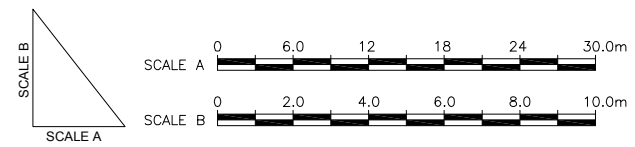
NOTE:
PURSUANT TO SECTION 4 OF ANNEX "A" OF THE REVISED IMPLEMENTING RULES AND REGULATIONS OF R.A. 9184, APPROVAL BY THE AUTHORIZED DPWH OFFICIALS OF DETAILED ENGINEERING SURVEYS AND DESIGN UNDERTAKEN BY CONSULTANTS NEITHER DIMINISHES THE RESPONSIBILITY OF THE LATTER FOR THE TECHNICAL INTEGRITY OF THE SURVEYS AND DESIGN NOR TRANSFER ANY PART OF THAT RESPONSIBILITY TO THE APPROVING OFFICIALS.

SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN 			REPUBLIC OF THE PHILIPPINES 			PROJECT & LOCATION PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA		SHEET CONTENTS LONGITUDINAL ELEVATION STA 15+965 ~ STA 16+350 LEFTBANK		SHEET NO. UP-RS LE 09
DESIGNED BY: EIJI MOKI <small>STRUCTURAL ENGINEER I</small>	CHECKED BY: TOSHIKI KAWAKAMI <small>THE CHECKER</small>	SUBMITTED BY: SHUJI KAKU <small>TEAM LEADER</small>	REVIEWED BY: PERFECTO L. ZAPLAN, JR. <small>CHIEF, HYDRAULIC DIVISION, BOD</small>	RECOMMENDING APPROVAL: PATRICK B. GATAN <small>PROJECT DIRECTOR PMO - MFCP</small>	GILBERTO S. REYES <small>DIRECTOR BOD</small>	APPROVED BY: SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY	APPROVED BY: SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY	RAUL C. ASIS <small>UNDERSECRETARY FOR TECHNICAL SERVICES</small>		ROGELIO L. SINGSON <small>SECRETARY</small>



LONGITUDINAL ELEVATION (STA 16+350 ~ 16+564 L-BANK)
SCALE : AB

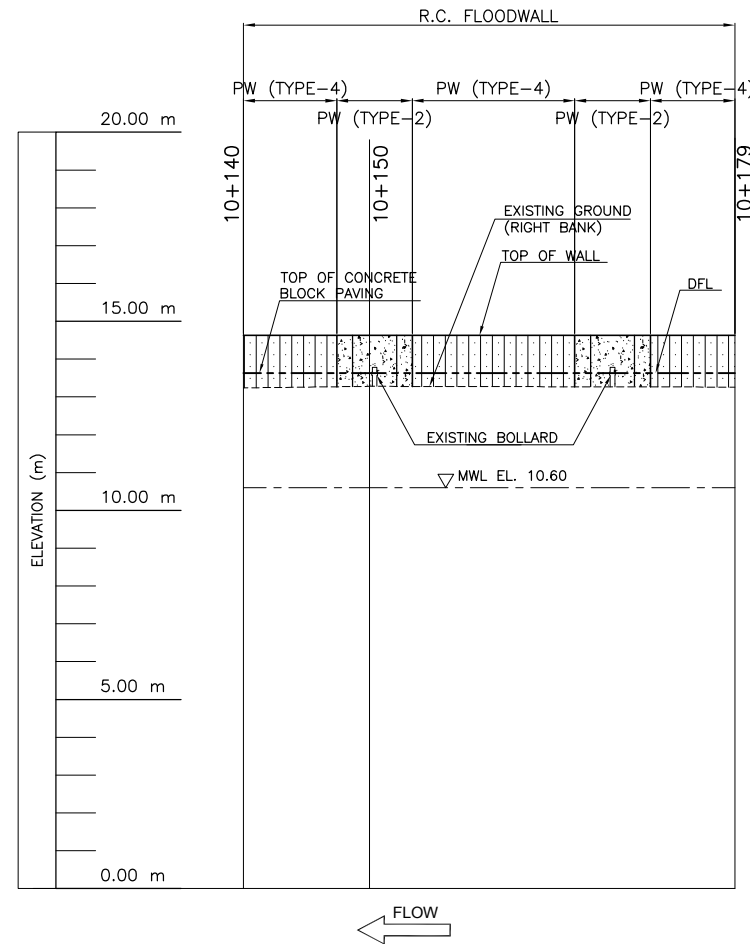


REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

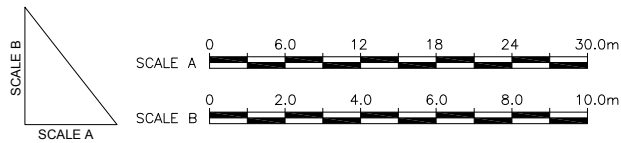
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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN 			REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS				PROJECT & LOCATION PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA		SHEET CONTENTS LONGITUDINAL ELEVATION STA 16+350 - STA 16+564 LEFT BANK	SHEET NO. UP-RS LE 10
DESIGNED BY: EIJI MOKI <small>STRUCTURAL ENGINEER I</small>	CHECKED BY: TOSHIKI KAWAKAMI <small>THE CHECKER</small>	SUBMITTED BY: SHUJI KAKU <small>TEAM LEADER</small>	REVIEWED BY: PERFECTO L. ZAPLAN, JR. <small>CHIEF, HYDRAULIC DIVISION, BOD</small>	RECOMMENDING APPROVAL: PATRICK B. GATAN <small>PROJECT DIRECTOR PMO - MFCP</small>	GILBERTO S. REYES <small>DIRECTOR BOD</small>	SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY RAUL C. ASIS <small>UNDERSECRETARY FOR TECHNICAL SERVICES</small>	SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY ROGELIO L. SINGSON <small>SECRETARY</small>			



LONGITUDINAL ELEVATION (STA 10+140 ~ 10+179 R-BANK)
SCALE : AB

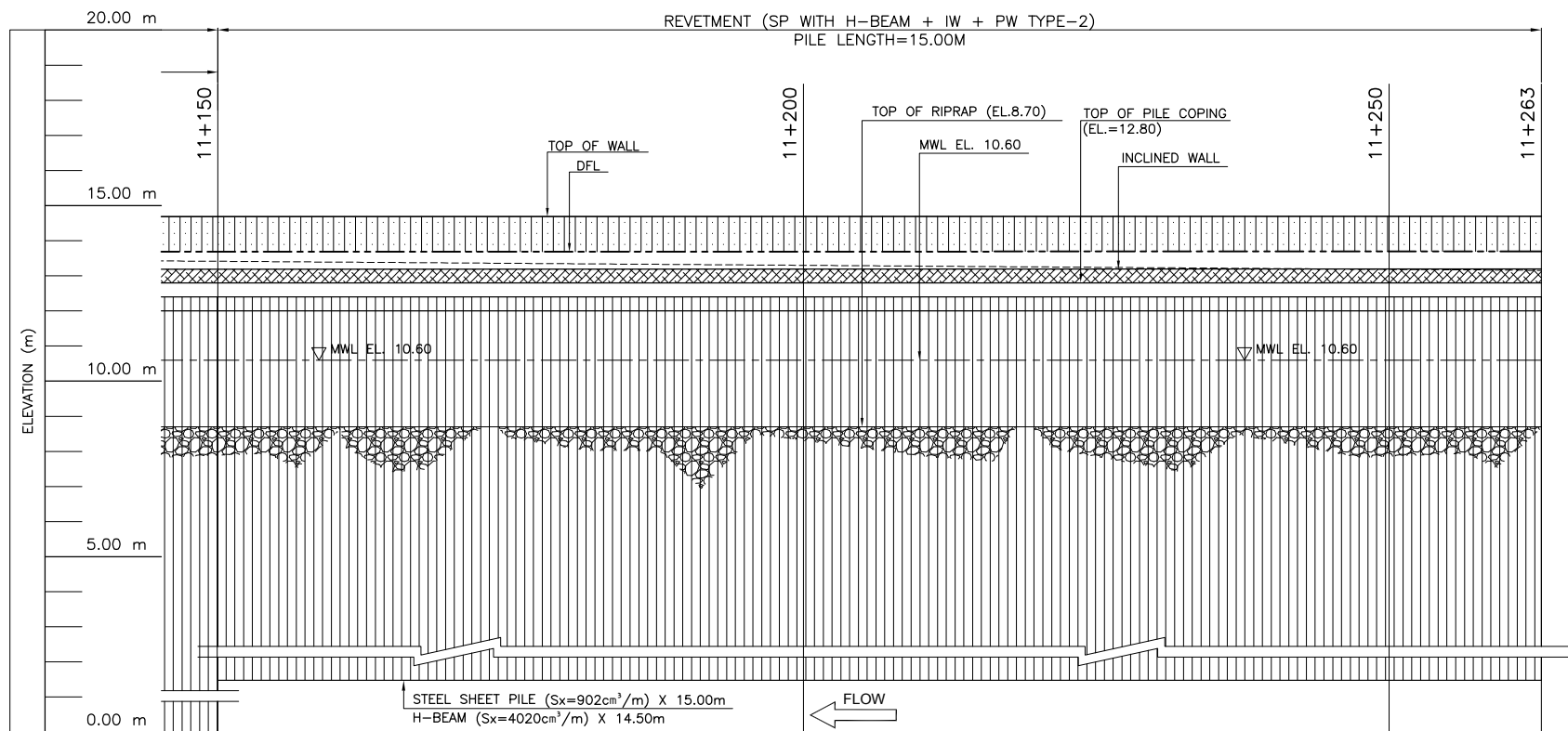
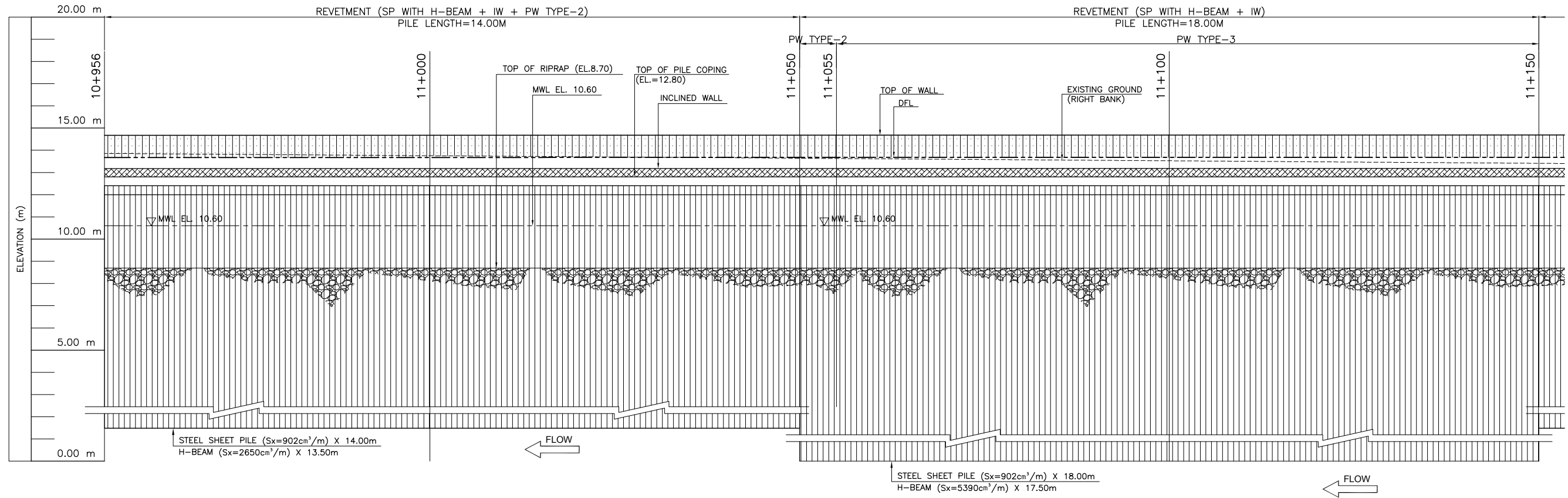


REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

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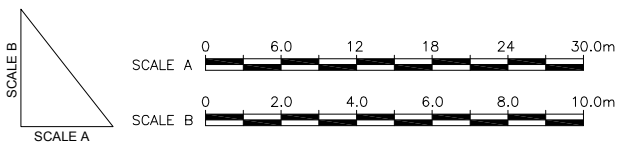
SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN			REPUBLIC OF THE PHILIPPINES				PROJECT & LOCATION	SHEET CONTENTS	SHEET NO.	
	DESIGNED BY:	CHECKED BY:	SUBMITTED BY:	REVIEWED BY:	RECOMMENDING APPROVAL :	APPROVED BY:	PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA	LONGITUDINAL ELEVATION STA 10+140 ~ STA 10+179 RIGHT BANK		
	EIJI MOKI STRUCTURAL ENGINEER I	TOSHIKI KAWAKAMI THE CHECKER	SHUJI KAKU TEAM LEADER		PERFECTO L. ZAPLAN, JR. CHIEF, HYDRAULIC DIVISION, BOD	PATRICK B. GATAN PROJECT DIRECTOR PMO - MFCP				GILBERTO S. REYES DIRECTOR BOD



LONGITUDINAL ELEVATION (STA 10+956 ~ 11+263 R-BANK)

SCALE : AB



REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

NOTE:
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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN



DESIGNED BY: EIJI MOKI
STRUCTURAL ENGINEER I

CHECKED BY: TOSHIKI KAWAKAMI
THE CHECKER

SUBMITTED BY: SHUJI KAKU
TEAM LEADER



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS
AND HIGHWAYS

REPUBLIC OF THE PHILIPPINES

REVIEWED BY: PERFECTO L. ZAPLAN, JR.
CHIEF, HYDRAULIC DIVISION, BOD

RECOMMENDING APPROVAL: PATRICK B. GATAN
PROJECT DIRECTOR
PMO - MFCP

GILBERTO S. REYES
DIRECTOR
BOD

SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY

APPROVED BY: RAUL C. ASIS
UNDERSECRETARY
FOR TECHNICAL SERVICES

SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY

ROGELIO L. SINGSON
SECRETARY

PROJECT & LOCATION

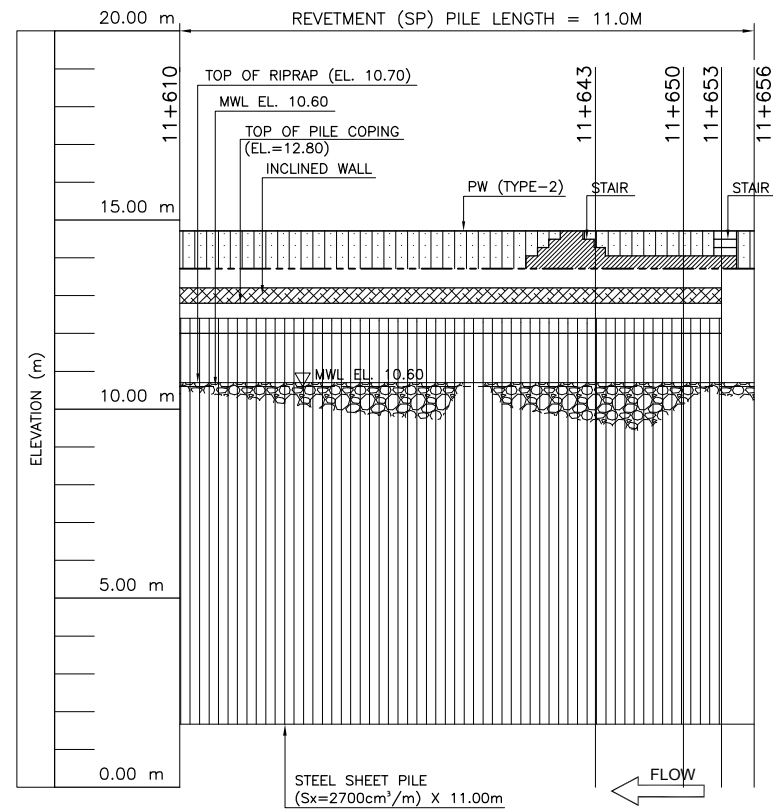
PASIG-MARIKINA
RIVER CHANNEL
IMPROVEMENT
PROJECT (PHASE III),
METRO MANILA

SHEET CONTENTS

LONGITUDINAL ELEVATION
STA 10+956 ~ STA 11+263
RIGHT BANK

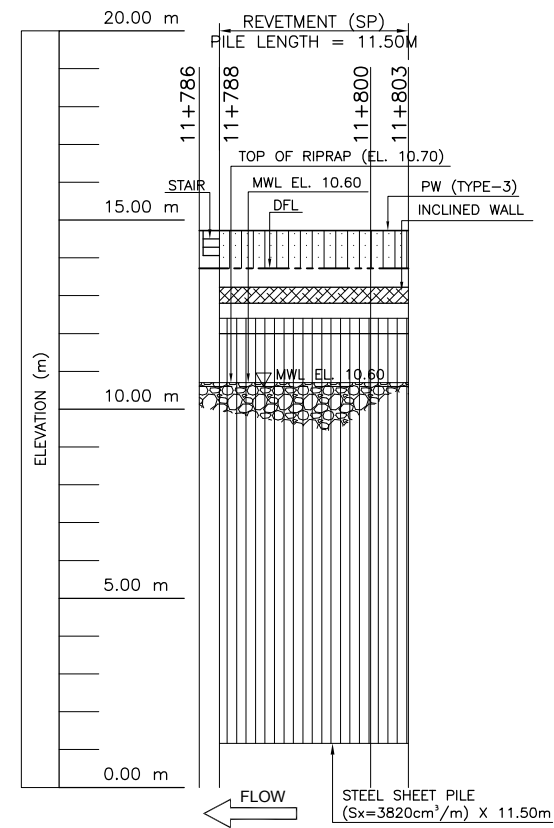
SHEET NO.

UP-RS
LE 12



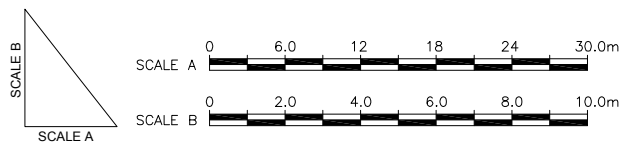
LONGITUDINAL ELEVATION (STA 11+610 ~ 11+656 R-BANK)

SCALE : AB



LONGITUDINAL ELEVATION (STA 11+786 ~ 11+803 R-BANK)

SCALE : AB



REVISIONS			
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NOTE:
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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN



DESIGNED BY: EIJI MOKI
STRUCTURAL ENGINEER I

CHECKED BY: TOSHIKI KAWAKAMI
THE CHECKER

SUBMITTED BY: SHUJI KAKU
TEAM LEADER



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS
AND HIGHWAYS

REPUBLIC OF THE PHILIPPINES

REVIEWED BY: PERFECTO L. ZAPLAN, JR.
CHIEF, HYDRAULIC DIVISION, BOD

RECOMMENDING APPROVAL: PATRICK B. GATAN
PROJECT DIRECTOR
PMO - MFCP

GILBERTO S. REYES
DIRECTOR
BOD

SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE UNDERSECRETARY

RAUL C. ASIS
UNDERSECRETARY
FOR TECHNICAL SERVICES

APPROVED BY: ROGELIO L. SINGSON
SECRETARY

PROJECT & LOCATION

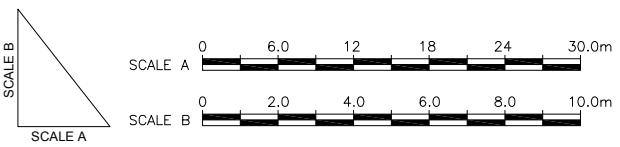
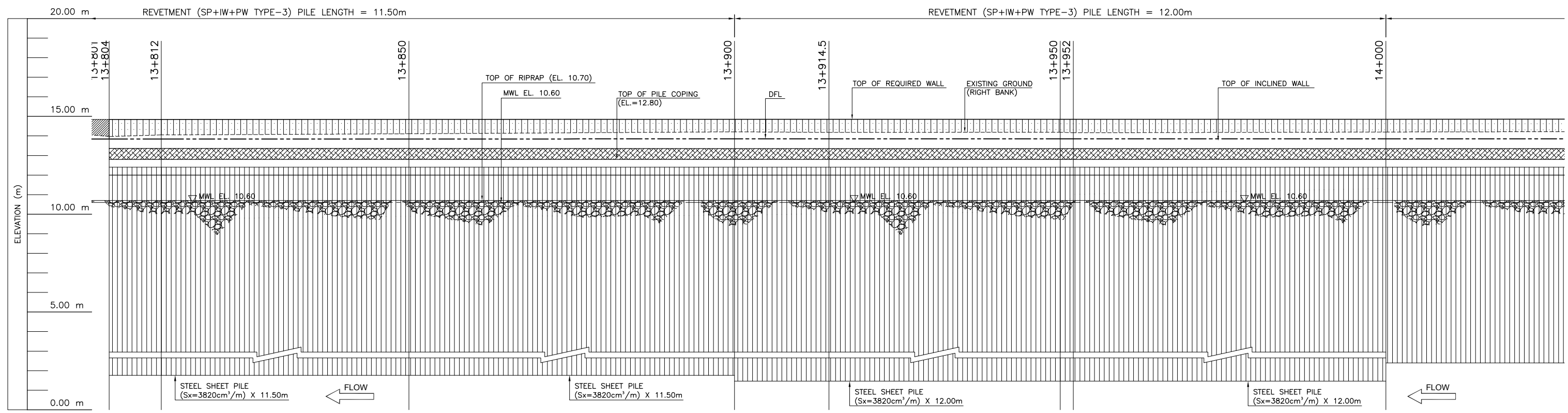
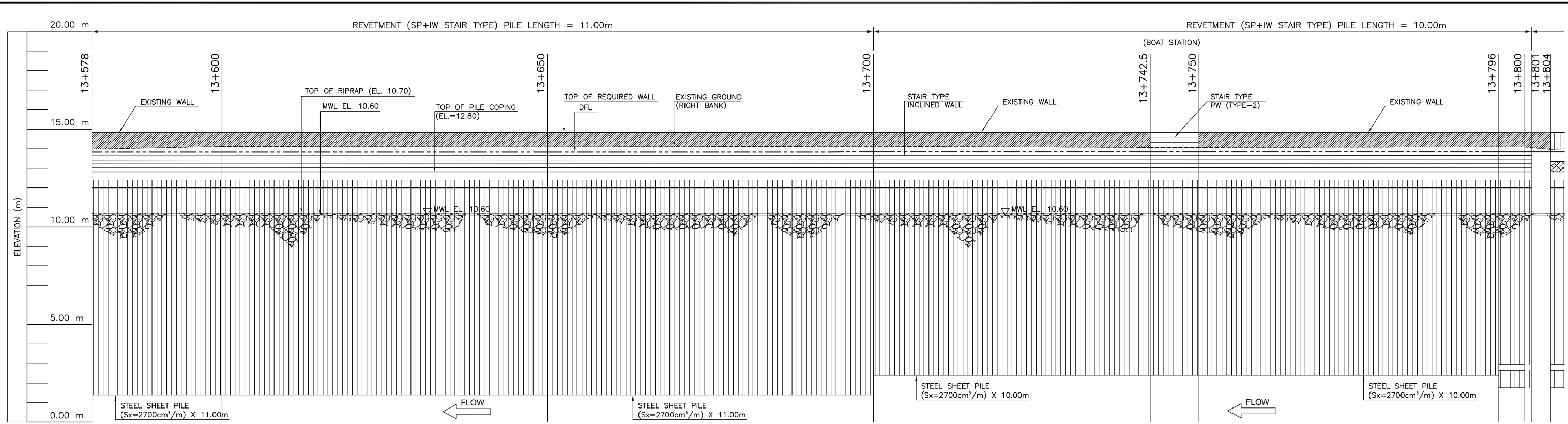
PASIG-MARIKINA
RIVER CHANNEL
IMPROVEMENT
PROJECT (PHASE III),
METRO MANILA

SHEET CONTENTS

LONGITUDINAL ELEVATION
(STA 11+610 ~ STA 11+656)
(STA 11+786 ~ STA 11+803)
RIGHT BANK

SHEET NO.

UP-RS
LE 13



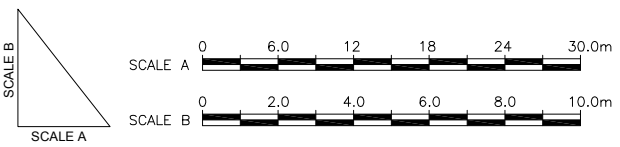
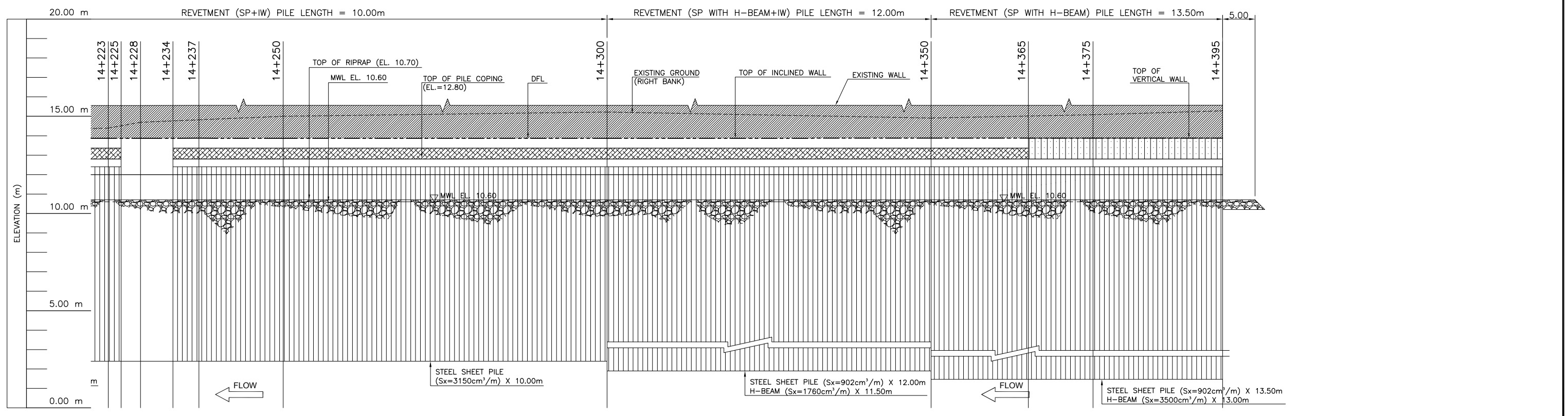
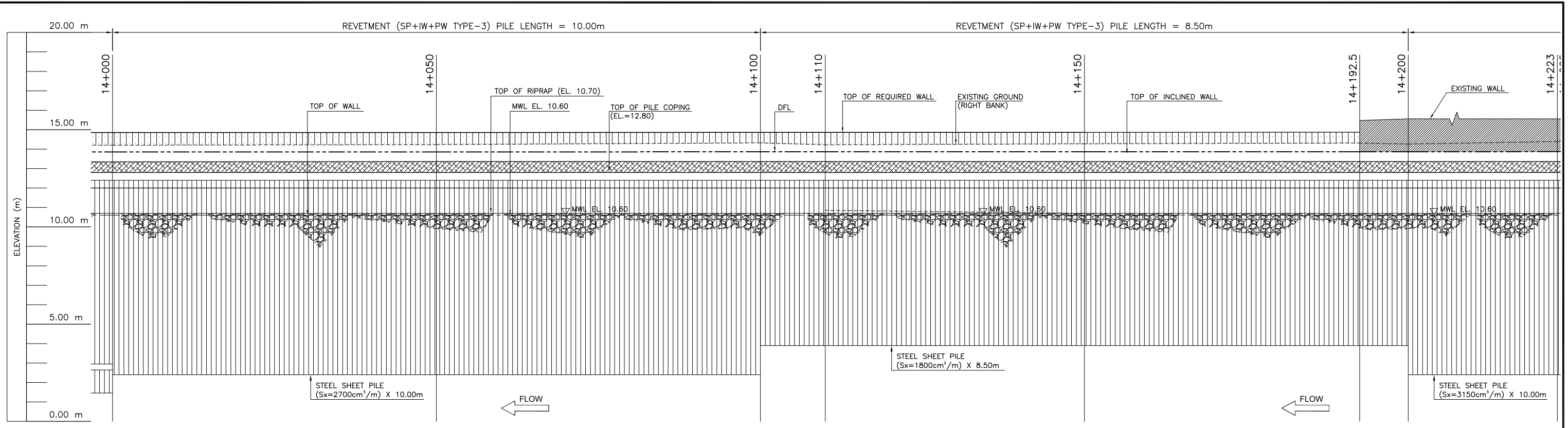
LONGITUDINAL ELEVATION (STA 13+578 ~ 14+000 R-BANK)
SCALE : AB

REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

NOTE:
PURSUANT TO SECTION 4 OF ANNEX "A" OF THE REVISED IMPLEMENTING RULES AND REGULATIONS OF R.A. 9184, APPROVAL BY THE AUTHORIZED DPWH OFFICIALS OF DETAILED ENGINEERING SURVEYS AND DESIGN UNDERTAKEN BY CONSULTANTS NEITHER DIMINISHES THE RESPONSIBILITY OF THE LATTER FOR THE TECHNICAL INTEGRITY OF THE SURVEYS AND DESIGN NOR TRANSFER ANY PART OF THAT RESPONSIBILITY TO THE APPROVING OFFICIALS.

SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN 			REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS 			PROJECT & LOCATION PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA		SHEET CONTENTS LONGITUDINAL ELEVATION STA 13+578 ~ STA 14+000 RIGHT BANK	SHEET NO. UP-RS LE 14
DESIGNED BY: EIJI MOKI <small>STRUCTURAL ENGINEER I</small>	CHECKED BY: TOSHIKI KAWAKAMI <small>THE CHECKER</small>	SUBMITTED BY: SHUJI KAKU <small>TEAM LEADER</small>	REVIEWED BY: PERFECTO L. ZAPLAN, JR. <small>CHIEF, HYDRAULIC DIVISION, BOD</small>	RECOMMENDING APPROVAL: PATRICK B. GATAN <small>PROJECT DIRECTOR PMO - MFCP</small>	GILBERTO S. REYES <small>DIRECTOR BOD</small>	APPROVED BY: SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE UNDERSECRETARY RAUL C. ASIS <small>UNDERSECRETARY FOR TECHNICAL SERVICES</small>	SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY ROGELIO L. SINGSON <small>SECRETARY</small>		



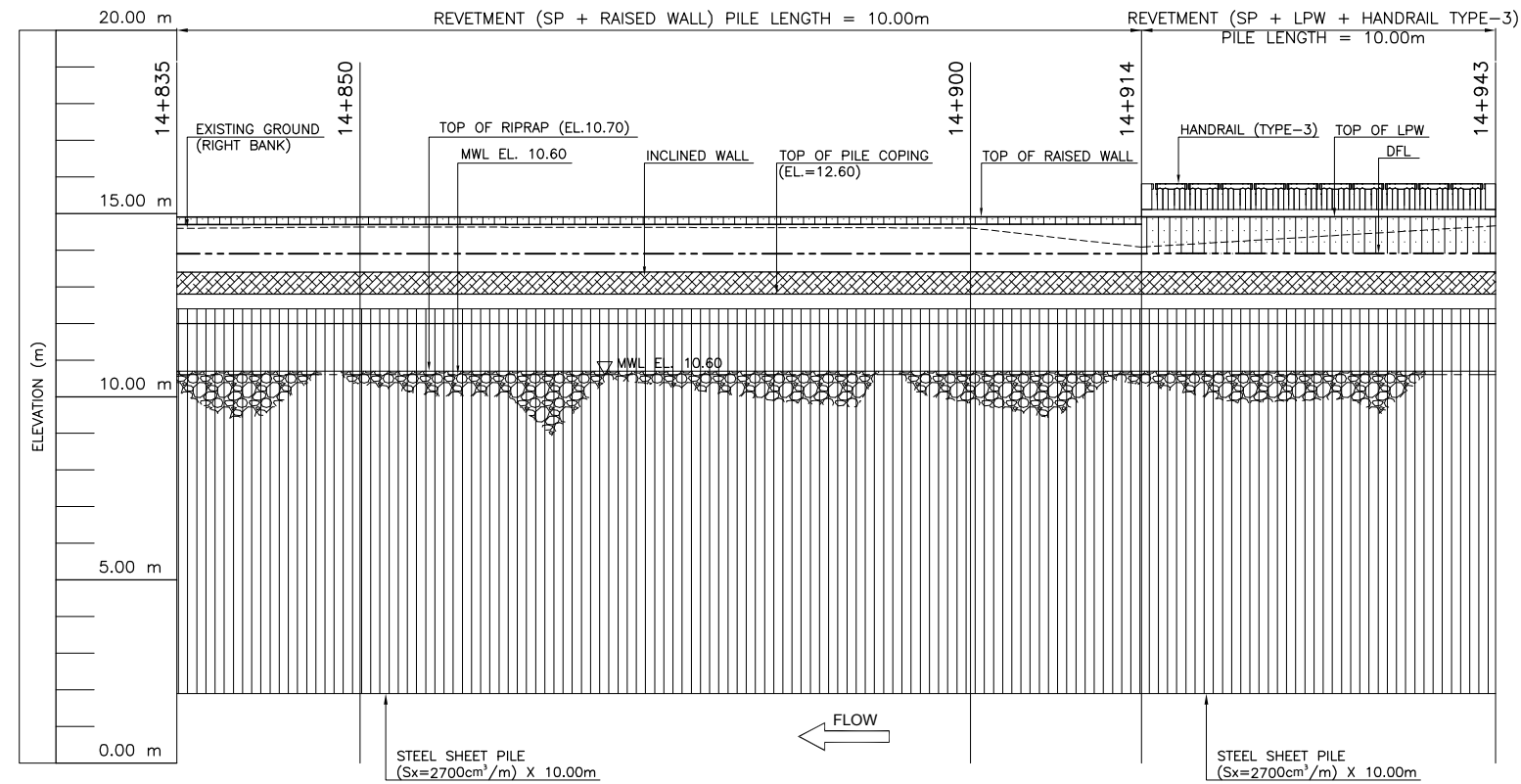
LONGITUDINAL ELEVATION (STA 14+000 ~ 14+395 R-BANK)
SCALE : AB

REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

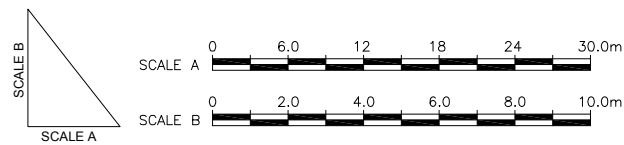
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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN 			REPUBLIC OF THE PHILIPPINES 			PROJECT & LOCATION PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA		SHEET CONTENTS LONGITUDINAL ELEVATION STA 14+000 ~ STA 14+395 RIGHT BANK		SHEET NO. UP-RS LE 15
DESIGNED BY: EIJI MOKI <small>STRUCTURAL ENGINEER I</small>	CHECKED BY: TOSHIKI KAWAKAMI <small>THE CHECKER</small>	SUBMITTED BY: SHUJI KAKU <small>TEAM LEADER</small>	REVIEWED BY: PERFECTO L. ZAPLAN, JR. <small>CHIEF, HYDRAULIC DIVISION, BOD</small>	RECOMMENDING APPROVAL: PATRICK B. GATAN <small>PROJECT DIRECTOR PMO - MFCP</small>	GILBERTO S. REYES <small>DIRECTOR BOD</small>	SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY RAUL C. ASIS <small>UNDERSECRETARY FOR TECHNICAL SERVICES</small>	SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY ROGELIO L. SINGSON <small>SECRETARY</small>	APPROVED BY: PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA		



LONGITUDINAL ELEVATION (STA 14+835 ~ 14+943 R-BANK)
SCALE : AB



REVISIONS			
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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN



DESIGNED BY: EIJI MOKI
STRUCTURAL ENGINEER I

CHECKED BY: TOSHIKI KAWAKAMI
THE CHECKER

SUBMITTED BY: SHUJI KAKU
TEAM LEADER



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS
AND HIGHWAYS

REPUBLIC OF THE PHILIPPINES

REVIEWED BY: PERFECTO L. ZAPLAN, JR.
CHIEF, HYDRAULIC DIVISION, BOD

RECOMMENDING APPROVAL: PATRICK B. GATAN
PROJECT DIRECTOR
PMO - MFCP

GILBERTO S. REYES
DIRECTOR
BOD

SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY

APPROVED BY: RAUL C. ASIS
UNDERSECRETARY
FOR TECHNICAL SERVICES

SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY

ROGELIO L. SINGSON
SECRETARY

PROJECT & LOCATION

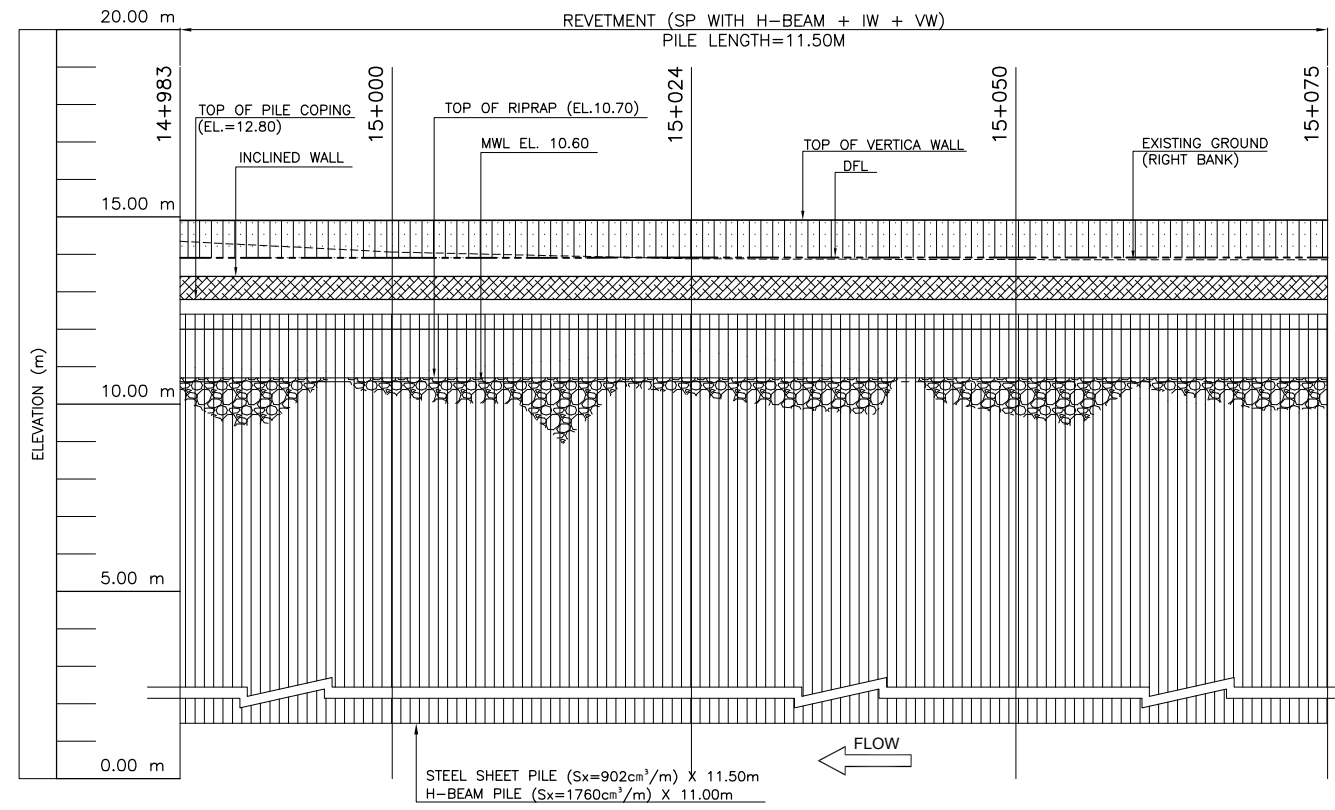
PASIG-MARIKINA
RIVER CHANNEL
IMPROVEMENT
PROJECT (PHASE III),
METRO MANILA

SHEET CONTENTS

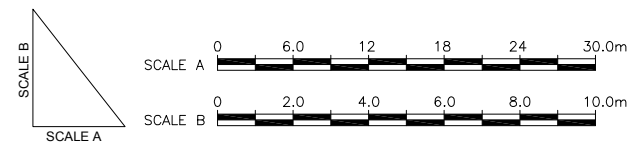
LONGITUDINAL ELEVATION
STA 14+835 ~ STA 14+943
RIGHT BANK

SHEET NO.

UP-RS
LE 16



LONGITUDINAL ELEVATION (STA 14+983 ~ 15+075 R-BANK)
SCALE : AB

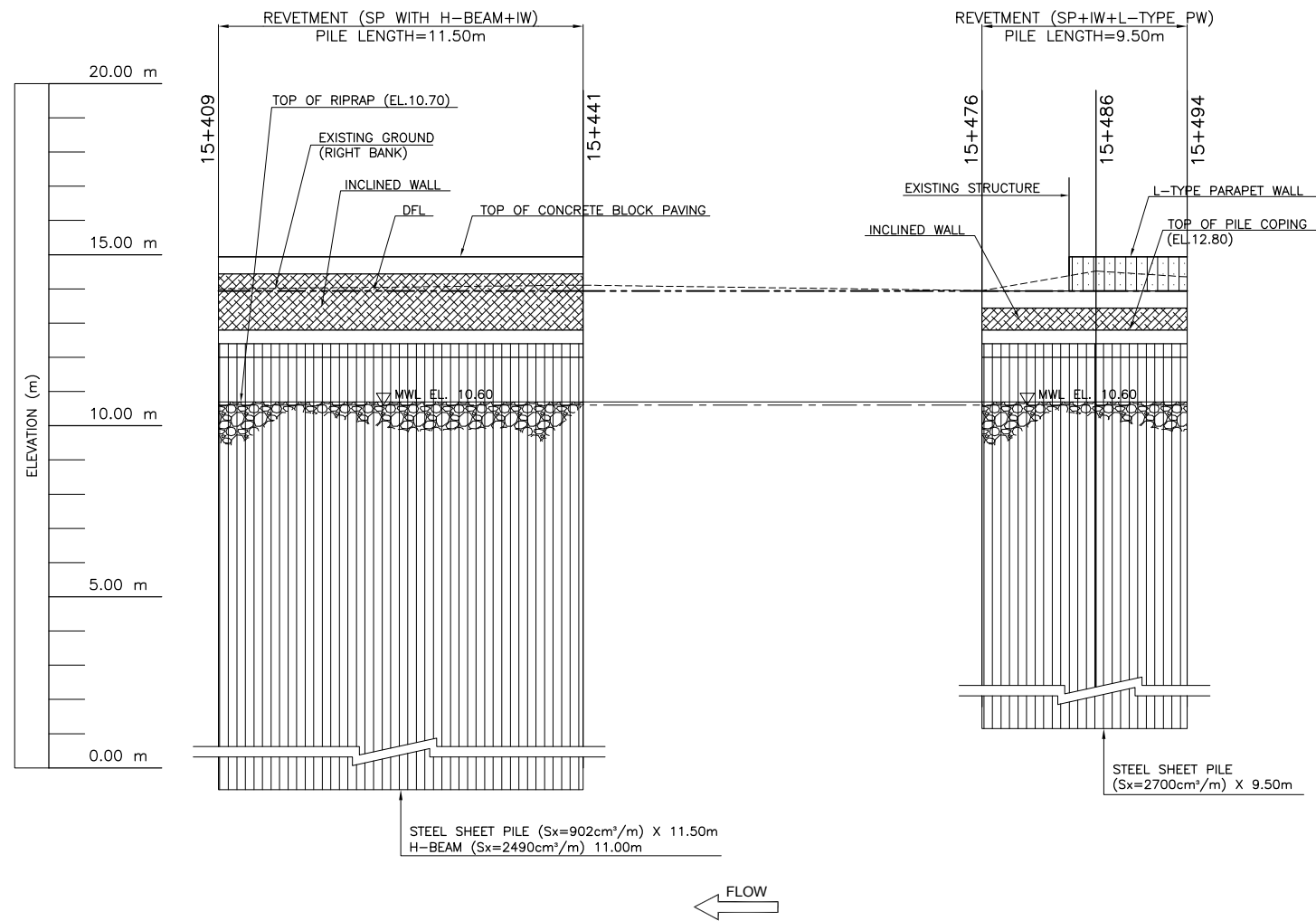


REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

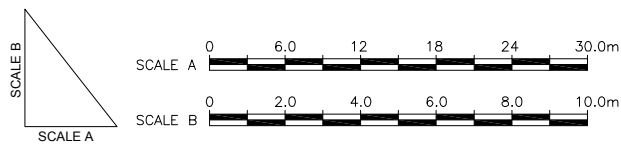
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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN 			REPUBLIC OF THE PHILIPPINES 			PROJECT & LOCATION PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA		SHEET CONTENTS LONGITUDINAL ELEVATION STA 14+983 ~ STA 15+075 RIGHT BANK	SHEET NO. UP-RS LE 17
DESIGNED BY: EIJI MOKI <small>STRUCTURAL ENGINEER I</small>	CHECKED BY: TOSHIKI KAWAKAMI <small>THE CHECKER</small>	SUBMITTED BY: SHUJI KAKU <small>TEAM LEADER</small>	REVIEWED BY: PERFECTO L. ZAPLAN, JR. <small>CHIEF, HYDRAULIC DIVISION, BOD</small>	RECOMMENDING APPROVAL: PATRICK B. GATAN <small>PROJECT DIRECTOR PMO - MFCP</small>	GILBERTO S. REYES <small>DIRECTOR BOD</small>	APPROVED BY: SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY RAUL C. ASIS <small>UNDERSECRETARY FOR TECHNICAL SERVICES</small>	APPROVED BY: SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY ROGELIO L. SINGSON <small>SECRETARY</small>		



LONGITUDINAL ELEVATION
 (STA 15+409-15+441 & 15+476-15+494 R-BANK)
 SCALE : AB

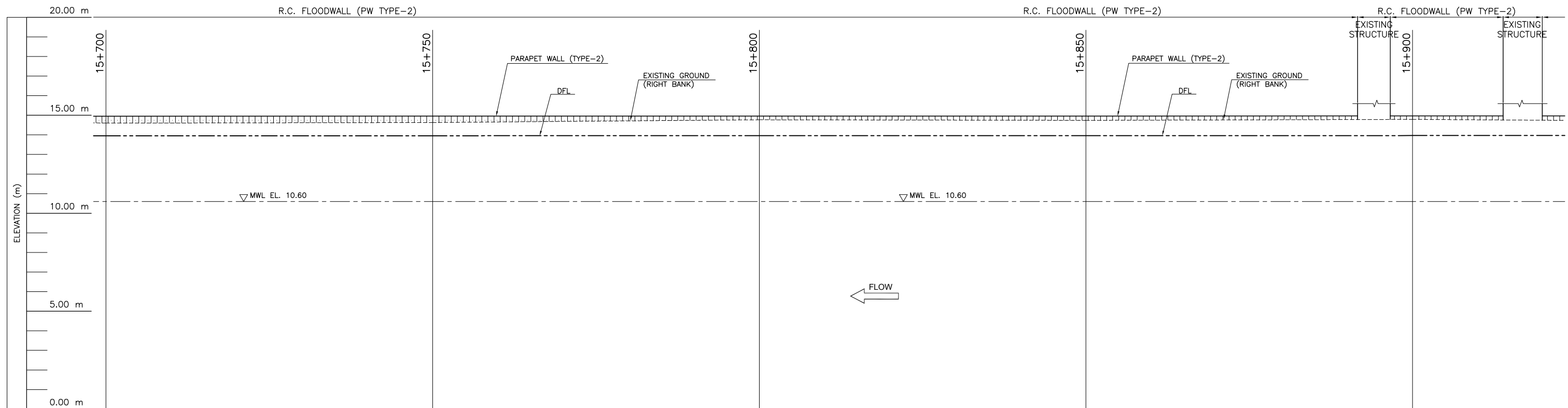
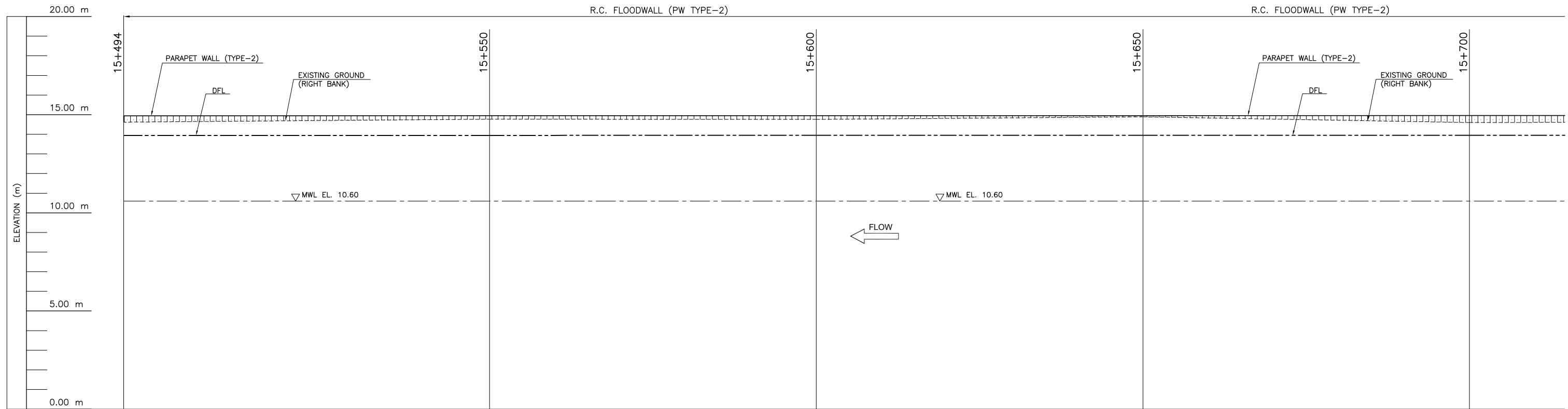


REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

NOTE:
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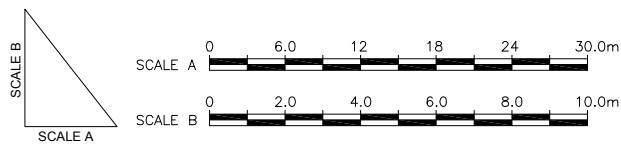
SHUJI KAKU
 TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN			REPUBLIC OF THE PHILIPPINES				PROJECT & LOCATION	SHEET CONTENTS	SHEET NO.
	DESIGNED BY:	CHECKED BY:		REVIEWED BY:	RECOMMENDING APPROVAL:	PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA	LONGITUDINAL ELEVATION STA 15+409 ~ STA 15+441 & STA 15+476 ~ STA 15+494 RIGHT BANK	UP-RS LE 18	
	EIJI MOKI STRUCTURAL ENGINEER I	TOSHIKI KAWAKAMI THE CHECKER		SHUJI KAKU TEAM LEADER	PERFECTO L. ZAPLAN, JR. CHIEF, HYDRAULIC DIVISION, BOD				PATRICK B. GATAN PROJECT DIRECTOR PMO - MFCP



LONGITUDINAL ELEVATION (STA 15+594 ~ 15+900 R-BANK)

SCALE : AB



REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

NOTE:
PURSUANT TO SECTION 4 OF ANNEX 'A' OF THE REVISED IMPLEMENTING RULES AND REGULATIONS OF R.A. 9184, APPROVAL BY THE AUTHORIZED DPWH OFFICIALS OF DETAILED ENGINEERING SURVEYS AND DESIGN UNDERTAKEN BY CONSULTANTS NEITHER DIMINISHES THE RESPONSIBILITY OF THE LATTER FOR THE TECHNICAL INTEGRITY OF THE SURVEYS AND DESIGN NOR TRANSFER ANY PART OF THAT RESPONSIBILITY TO THE APPROVING OFFICIALS.

SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN

REPUBLIC OF THE PHILIPPINES



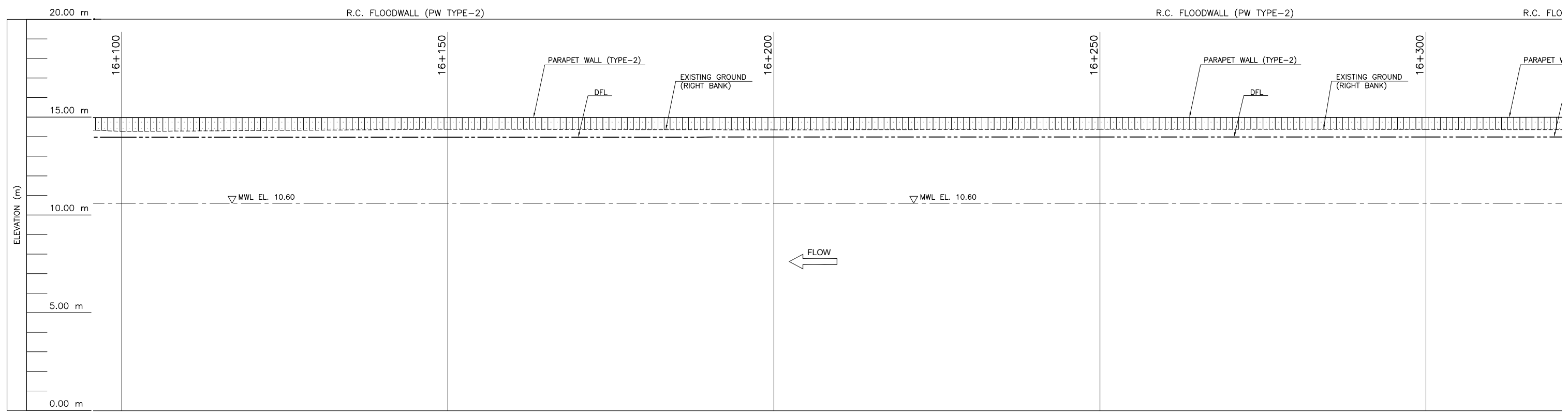
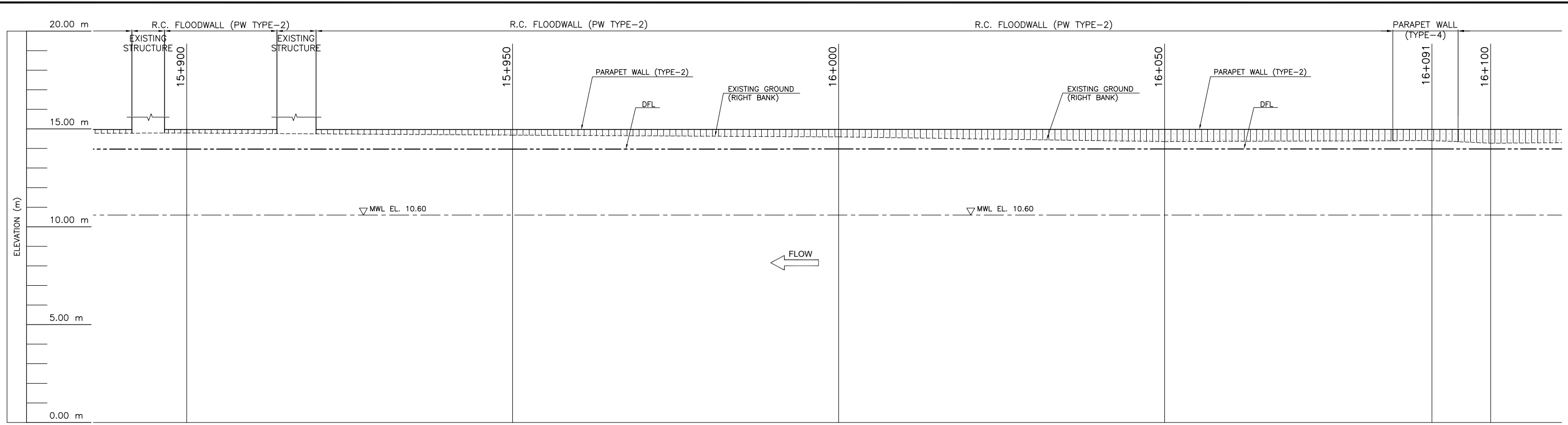
DESIGNED BY: EJI MOKI STRUCTURAL ENGINEER I	CHECKED BY: TOSHIKI KAWAKAMI THE CHECKER	SUBMITTED BY: SHUJI KAKU TEAM LEADER
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REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS
AND HIGHWAYS

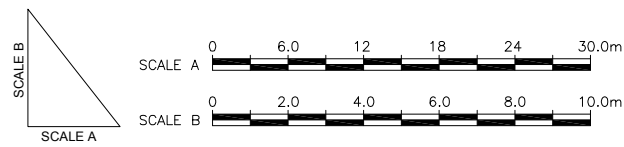
REVIEWED BY: PERFECTO L. ZAPLAN, JR. CHIEF, HYDRAULIC DIVISION, BOD	RECOMMENDING APPROVAL: PATRICK B. GATAN PROJECT DIRECTOR PMO - MFCP	GILBERTO S. REYES DIRECTOR BOD	SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY RAUL C. ASIS UNDERSECRETARY FOR TECHNICAL SERVICES	APPROVED BY: SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY ROGELIO L. SINGSON SECRETARY
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PROJECT & LOCATION PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA	SHEET CONTENTS LONGITUDINAL ELEVATION STA 15+594 ~ STA 15+900 RIGHT BANK	SHEET NO. UP-RS LE 19
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LONGITUDINAL ELEVATION (STA 15+900 ~ 16+300 R-BANK)

SCALE : AB

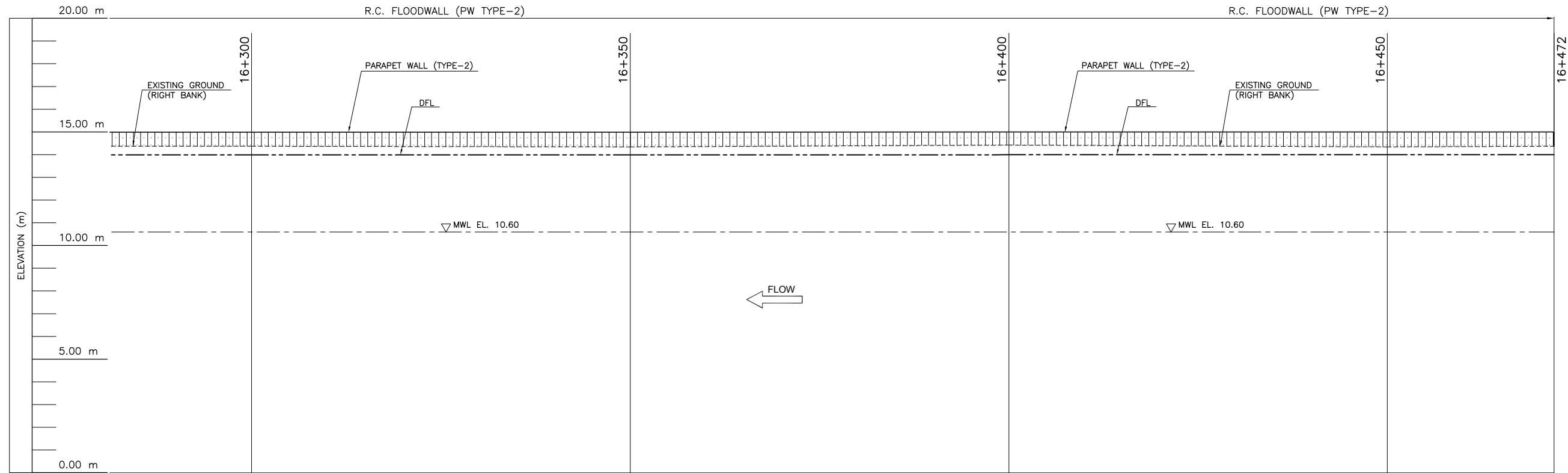


REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

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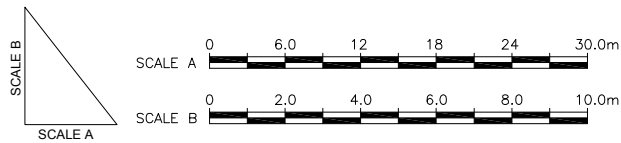
SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN 			REPUBLIC OF THE PHILIPPINES 				PROJECT & LOCATION PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA		SHEET CONTENTS LONGITUDINAL ELEVATION STA 15+900 ~ STA 16+300 RIGHT BANK	SHEET NO. UP-RS LE 20
DESIGNED BY: EIJI MOKI <small>STRUCTURAL ENGINEER I</small>	CHECKED BY: TOSHIKI KAWAKAMI <small>THE CHECKER</small>	SUBMITTED BY: SHUJI KAKU <small>TEAM LEADER</small>	REVIEWED BY: PERFECTO L. ZAPLAN, JR. <small>CHIEF, HYDRAULIC DIVISION, BOD</small>	RECOMMENDING APPROVAL: PATRICK B. GATAN <small>PROJECT DIRECTOR PMO - MFCP</small>	GILBERTO S. REYES <small>DIRECTOR BOD</small>	SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY RAUL C. ASIS <small>UNDERSECRETARY FOR TECHNICAL SERVICES</small>	SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY ROGELIO L. SINGSON <small>SECRETARY</small>			



LONGITUDINAL ELEVATION (STA 16+300 ~ 16+472 R-BANK)

SCALE : AB



REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

NOTE:
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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN



DESIGNED BY: EIJI MOKI
STRUCTURAL ENGINEER I

CHECKED BY: TOSHIKI KAWAKAMI
THE CHECKER

SUBMITTED BY: SHUJI KAKU
TEAM LEADER



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS
AND HIGHWAYS

REPUBLIC OF THE PHILIPPINES

REVIEWED BY: PERFECTO L. ZAPLAN, JR.
CHIEF, HYDRAULIC DIVISION, BOD

RECOMMENDING APPROVAL: PATRICK B. GATAN
PROJECT DIRECTOR
PMO - MFCP

GILBERTO S. REYES
DIRECTOR
BOD

SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY

APPROVED BY: RAUL C. ASIS
UNDERSECRETARY
FOR TECHNICAL SERVICES

SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY

ROGELIO L. SINGSON
SECRETARY

PROJECT & LOCATION

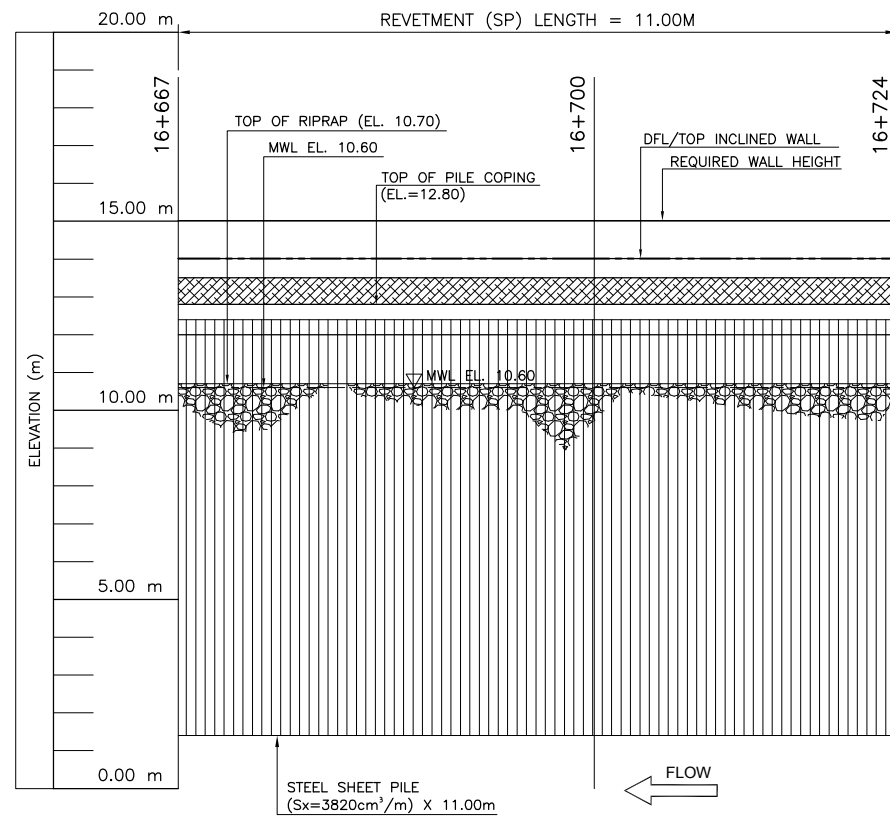
PASIG-MARIKINA
RIVER CHANNEL
IMPROVEMENT
PROJECT (PHASE III),
METRO MANILA

SHEET CONTENTS

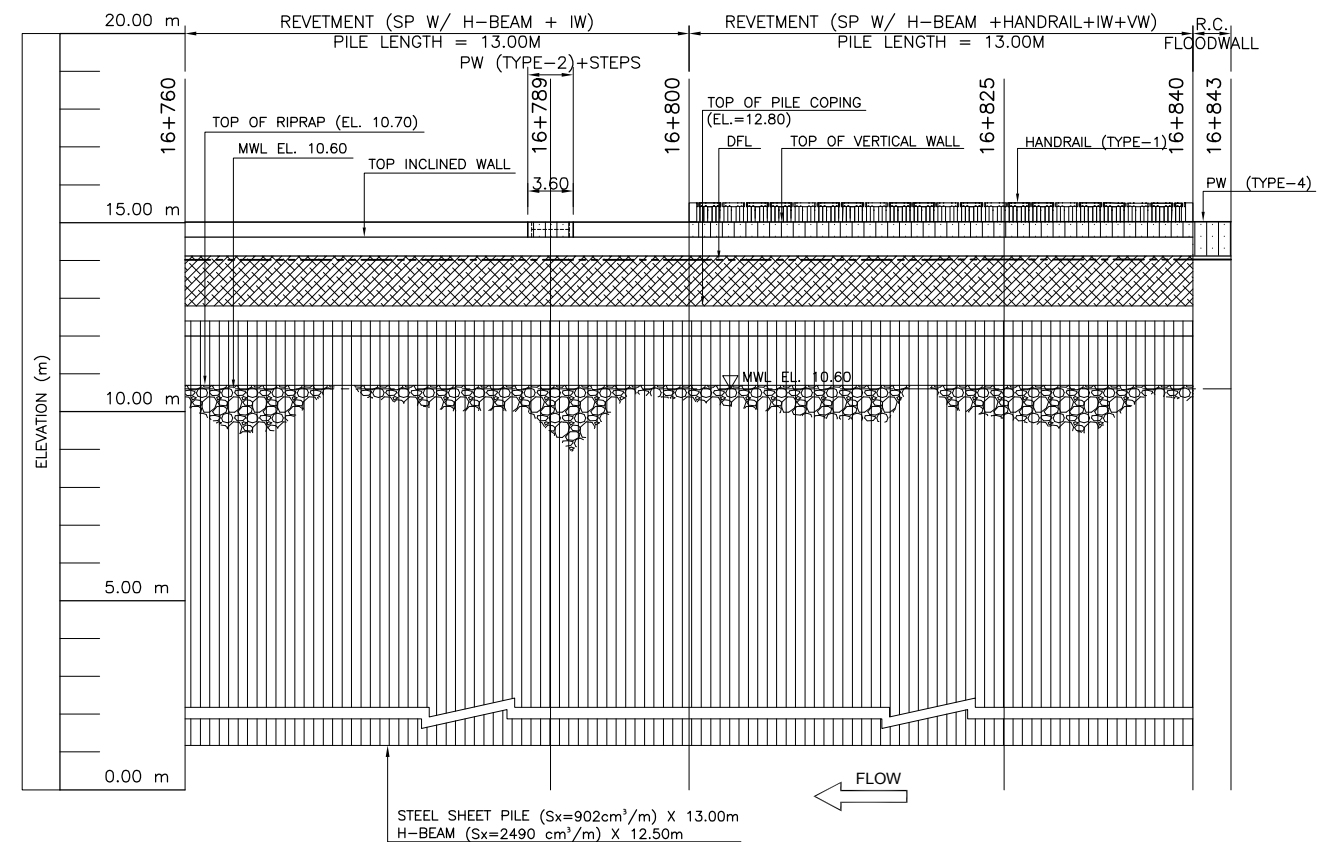
LONGITUDINAL ELEVATION
STA 16+300 ~ STA 16+472
RIGHT BANK

SHEET NO.

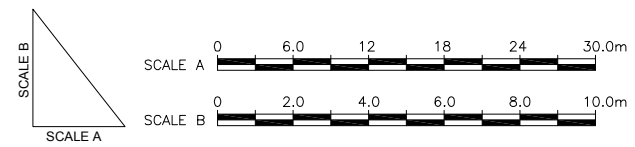
UP-RS
LE 21



LONGITUDINAL ELEVATION (STA 16+667 ~ 16+724 R-BANK)
SCALE : AB



LONGITUDINAL ELEVATION (STA 16+760 ~ 16+843 R-BANK)
SCALE : AB

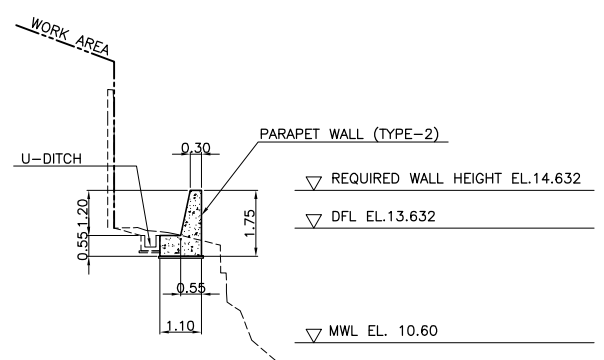


REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

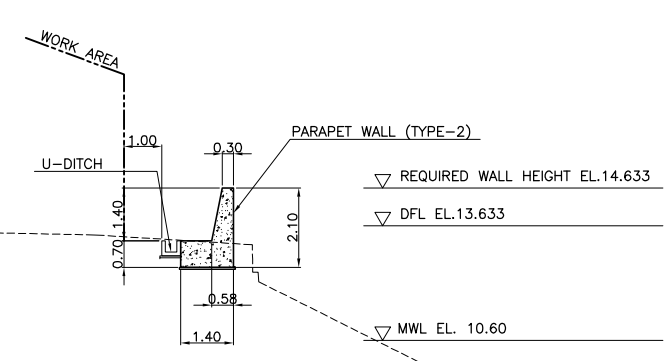
NOTE:
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SHUJI KAKU
TEAM LEADER

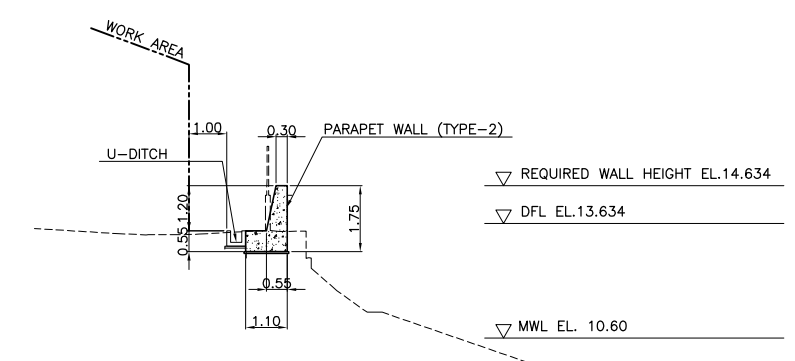
CTI ENGINEERING INTERNATIONAL CO., LTD.			REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS			REVISIONS		NOTE:		
JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN			REVIEWED BY:			RECOMMENDING APPROVAL:		APPROVED BY:		
DESIGNED BY: EIJI MOKI <small>STRUCTURAL ENGINEER I</small>	CHECKED BY: TOSHIKI KAWAKAMI <small>THE CHECKER</small>	SUBMITTED BY: SHUJI KAKU <small>TEAM LEADER</small>	PERFECTO L. ZAPLAN, JR. <small>CHIEF, HYDRAULIC DIVISION, BOD</small>	PATRICK B. GATAN <small>PROJECT DIRECTOR PMO - MFCP</small>	GILBERTO S. REYES <small>DIRECTOR BOD</small>	SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY RAUL C. ASIS <small>UNDERSECRETARY FOR TECHNICAL SERVICES</small>	SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY ROGELIO L. SINGSON <small>SECRETARY</small>	PROJECT & LOCATION PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA	SHEET CONTENTS LONGITUDINAL ELEVATION (STA 16+667 ~ 16+724) (STA 16+760 ~ 16+843) RIGHT BANK	SHEET NO.



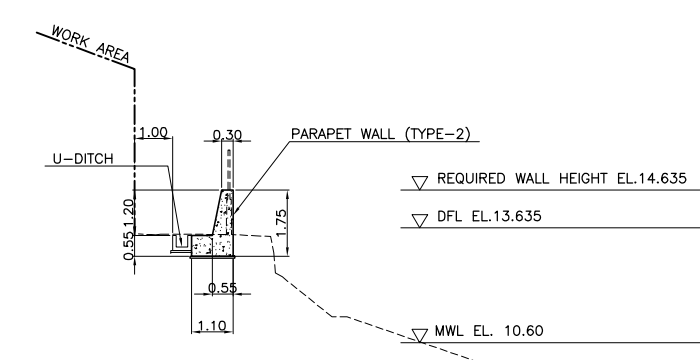
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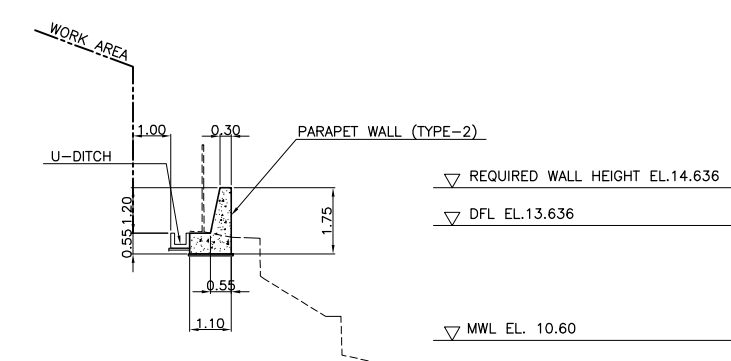
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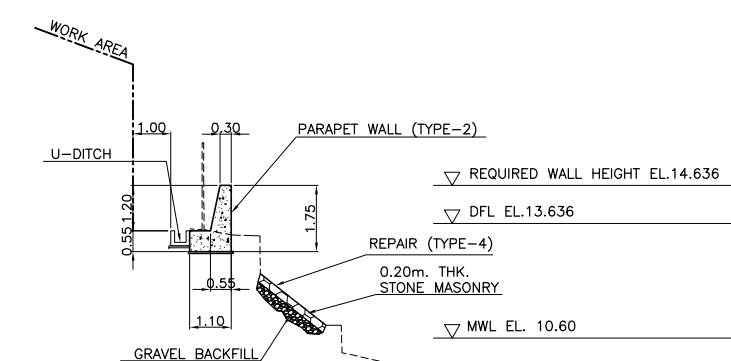
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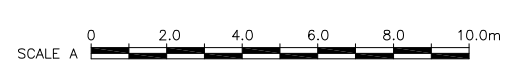
STA. 10+283.5 (LEFT BANK)



STA. 10+300 (LEFT BANK)



STA. 10+315 (LEFT BANK)

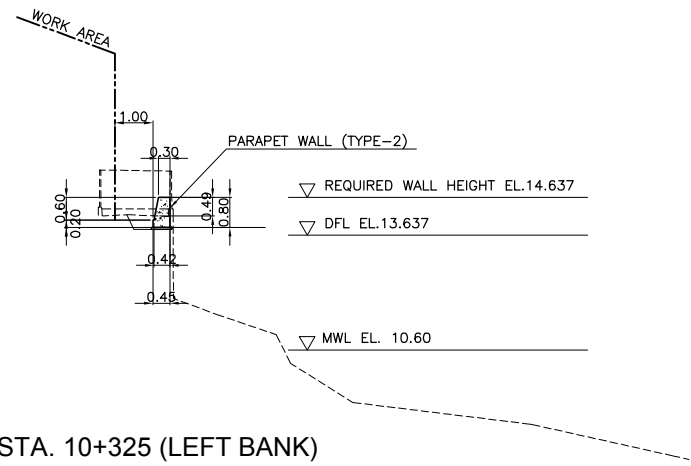


REVISIONS			
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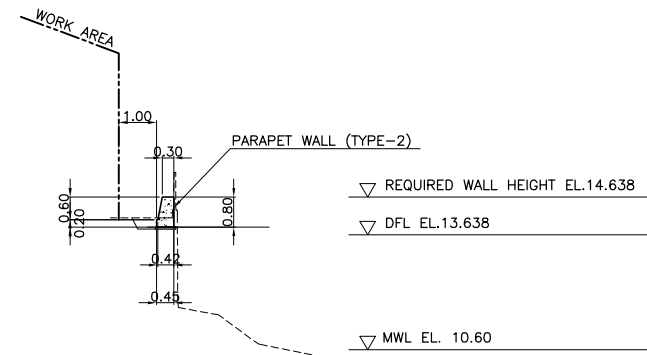
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SHUJI KAKU
TEAM LEADER

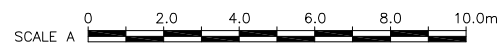
JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN			REPUBLIC OF THE PHILIPPINES				PROJECT & LOCATION	SHEET CONTENTS	SHEET NO.	
	DESIGNED BY:	CHECKED BY:	SUBMITTED BY:		REVIEWED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA	CROSS SECTION STA 10+232 ~ STA 10+315 (LEFT BANK)	
	EIJI MOKI STRUCTURAL ENGINEER I	TOSHIKI KAWAKAMI THE CHECKER	SHUJI KAKU TEAM LEADER		PERFECTO L. ZAPLAN, JR. CHIEF, HYDRAULIC DIVISION, BOD	PATRICK B. GATAN PROJECT DIRECTOR PMO - MFCP	GILBERTO S. REYES DIRECTOR BOD			



STA. 10+325 (LEFT BANK)



STA. 10+341 (LEFT BANK)



REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN

REPUBLIC OF THE PHILIPPINES



DESIGNED BY:	CHECKED BY:	SUBMITTED BY:
EIJI MOKI STRUCTURAL ENGINEER I	TOSHIKI KAWAKAMI THE CHECKER	SHUJI KAKU TEAM LEADER



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS
AND HIGHWAYS

REVIEWED BY:	RECOMMENDING APPROVAL :			APPROVED BY:
PERFECTO L. ZAPLAN, JR. CHIEF, HYDRAULIC DIVISION, BOD	PATRICK B. GATAN PROJECT DIRECTOR PMO - MFCP	GILBERTO S. REYES DIRECTOR BOD	SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY	SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY
			RAUL C. ASIS UNDERSECRETARY FOR TECHNICAL SERVICES	ROGELIO L. SINGSON SECRETARY

PROJECT & LOCATION

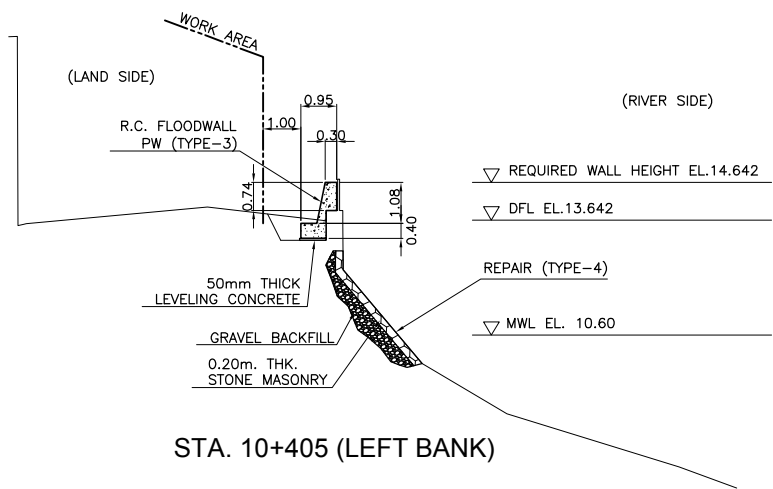
PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA

SHEET CONTENTS

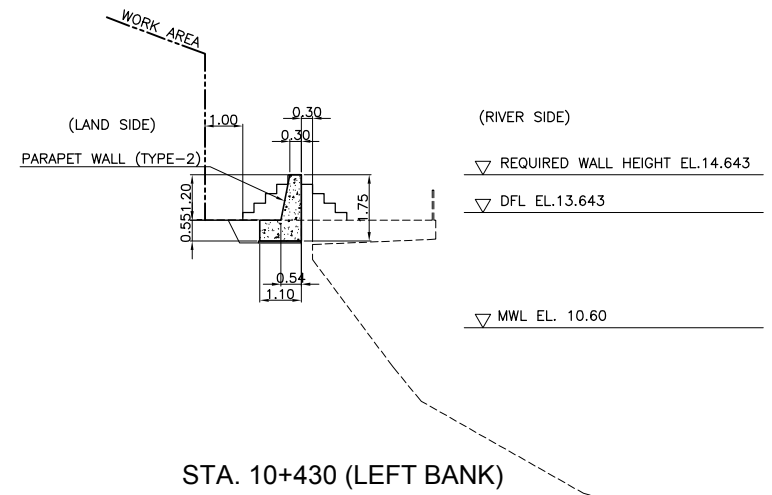
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STA 10+325-STA 10+341
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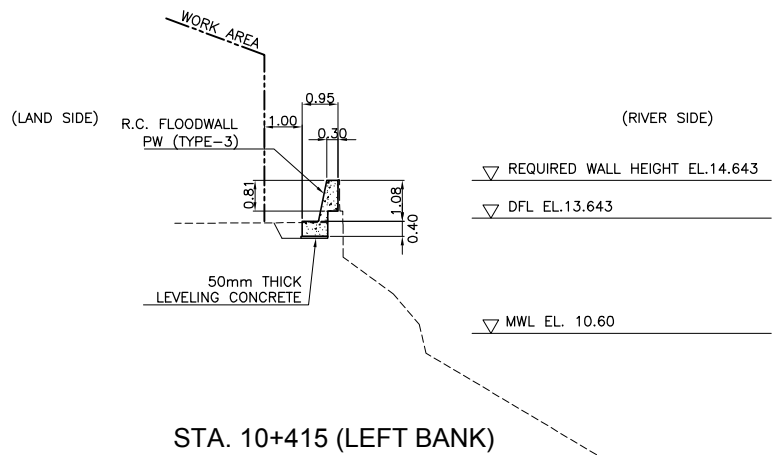
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CS 02



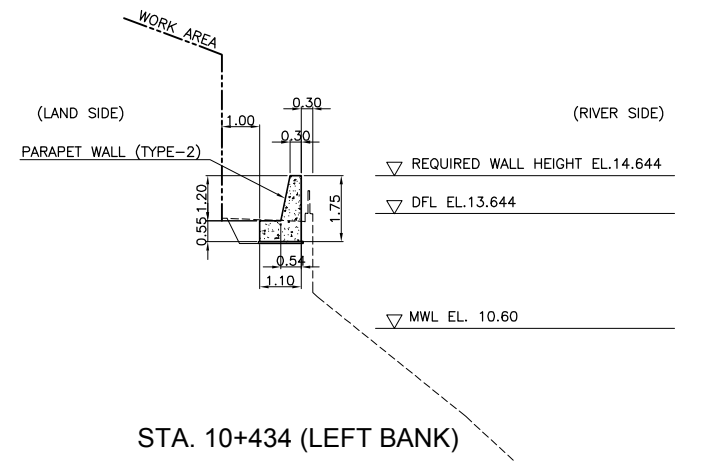
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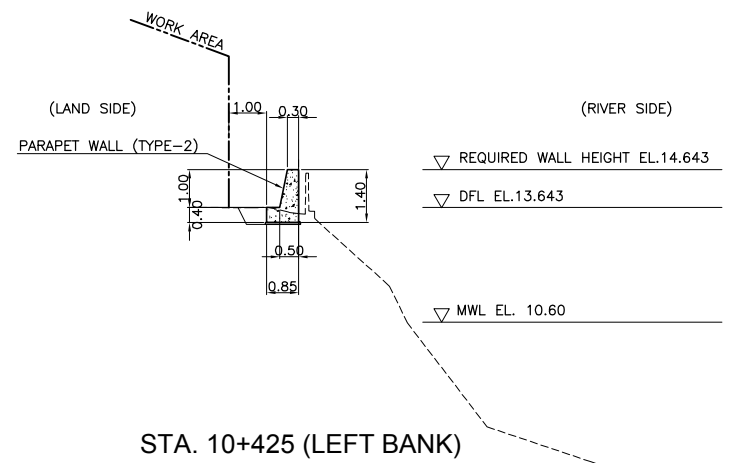
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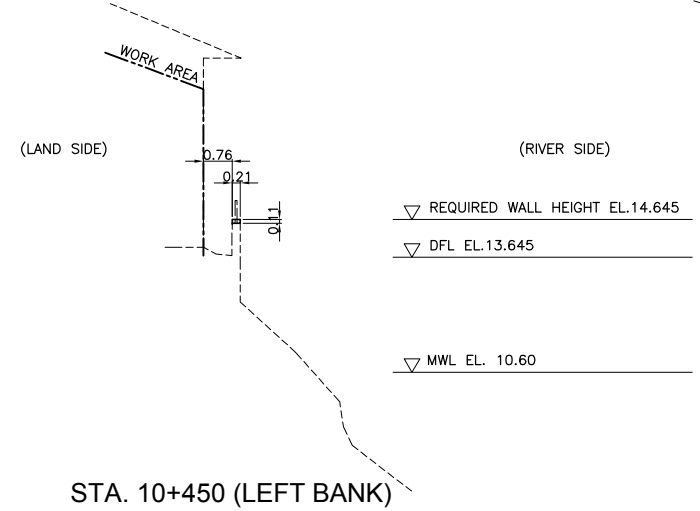
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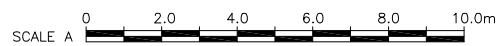
STA. 10+434 (LEFT BANK)



STA. 10+425 (LEFT BANK)



STA. 10+450 (LEFT BANK)

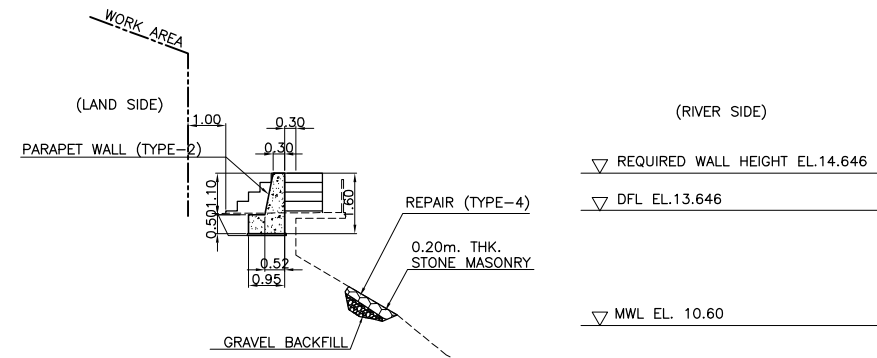


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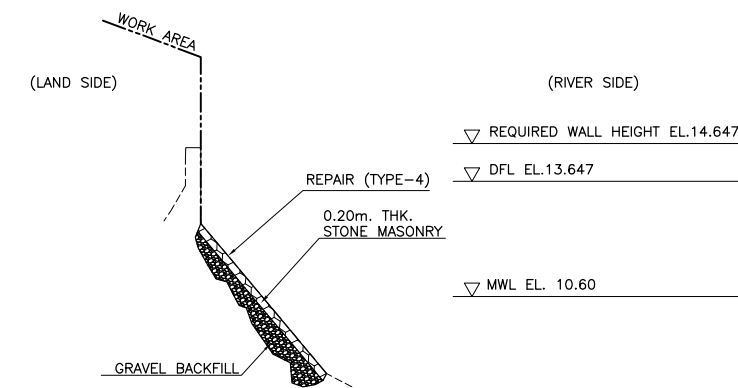
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SHUJI KAKU
TEAM LEADER

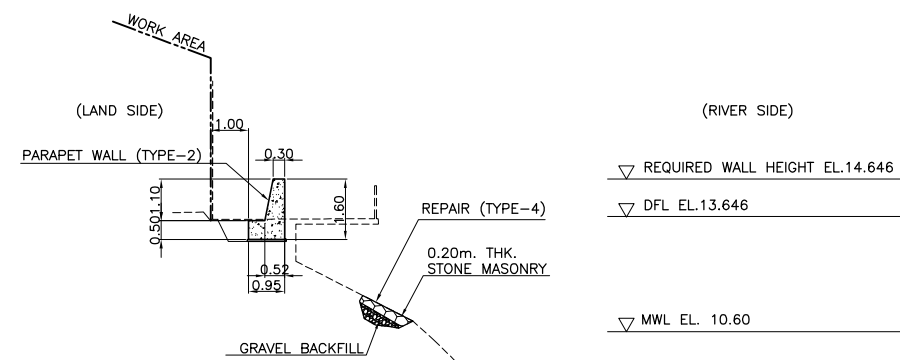
JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN			REPUBLIC OF THE PHILIPPINES				PROJECT & LOCATION	SHEET CONTENTS	SHEET NO.
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	EIJI MOKI STRUCTURAL ENGINEER I	TOSHIKI KAWAKAMI THE CHECKER	SHUJI KAKU TEAM LEADER	PERFECTO L. ZAPLAN, JR. CHIEF, HYDRAULIC DIVISION, BOD	PATRICK B. GATAN PROJECT DIRECTOR PMO - MFCP	GILBERTO S. REYES DIRECTOR BOD			



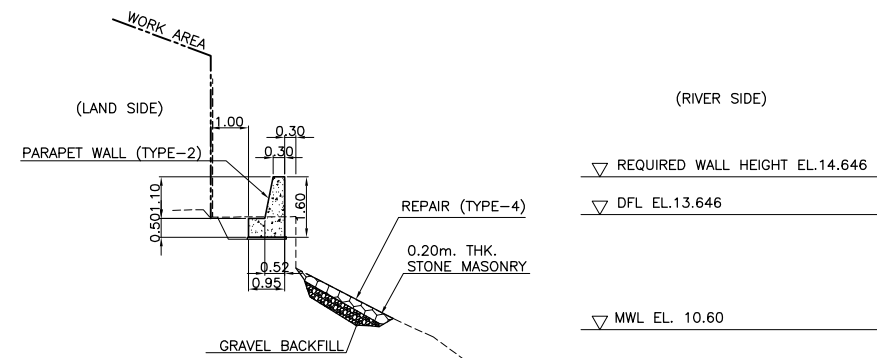
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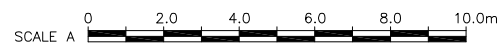
STA. 10+497 (LEFT BANK)



STA. 10+474 (LEFT BANK)



STA. 10+477 (LEFT BANK)



REVISIONS			
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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN



DESIGNED BY: EIJI MOKI
STRUCTURAL ENGINEER I

CHECKED BY: TOSHIKI KAWAKAMI
THE CHECKER

SUBMITTED BY: SHUJI KAKU
TEAM LEADER



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS
AND HIGHWAYS

REPUBLIC OF THE PHILIPPINES

REVIEWED BY: PERFECTO L. ZAPLAN, JR.
CHIEF, HYDRAULIC DIVISION, BOD

RECOMMENDING APPROVAL: PATRICK B. GATAN
PROJECT DIRECTOR
PMO - MFCP

GILBERTO S. REYES
DIRECTOR
BOD

APPROVED BY: RAUL C. ASIS
UNDERSECRETARY
FOR TECHNICAL SERVICES

ROGELIO L. SINGSON
SECRETARY

PROJECT & LOCATION

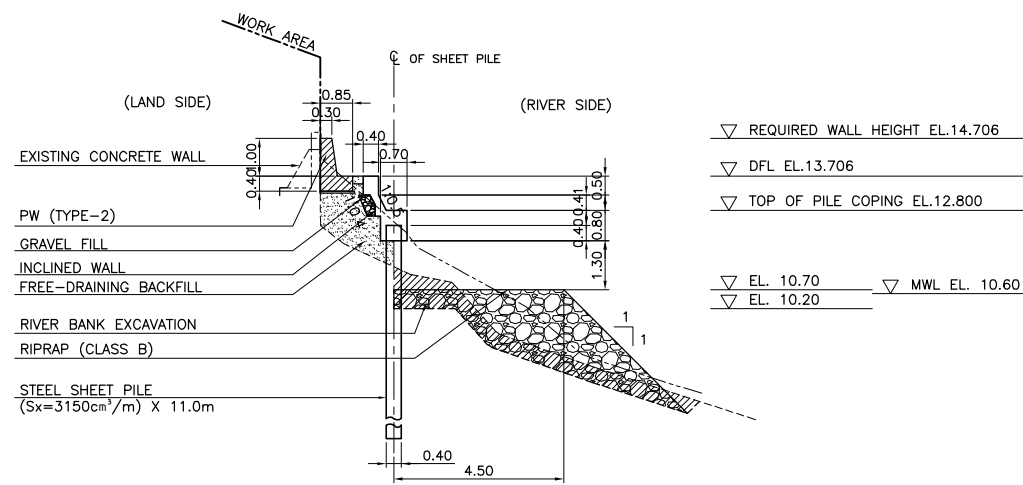
PASIG-MARIKINA
RIVER CHANNEL
IMPROVEMENT
PROJECT (PHASE III),
METRO MANILA

SHEET CONTENTS

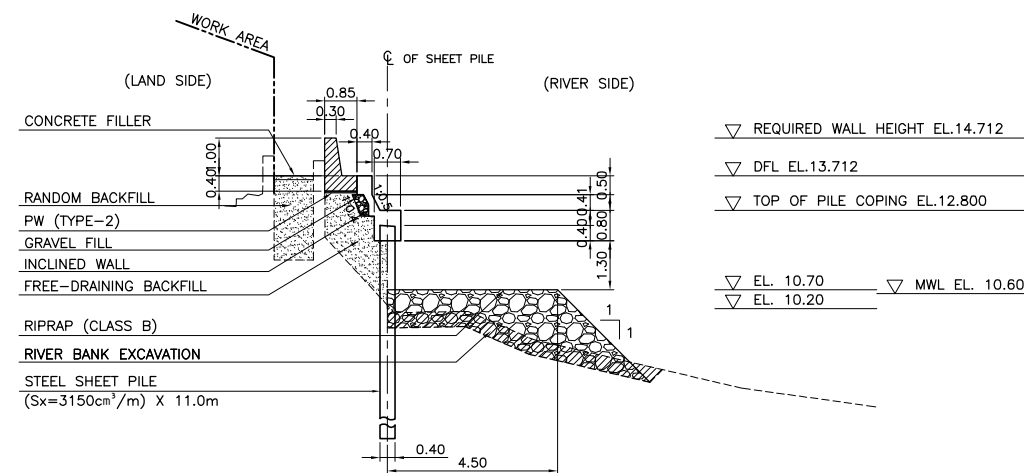
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(LEFT BANK)

SHEET NO.

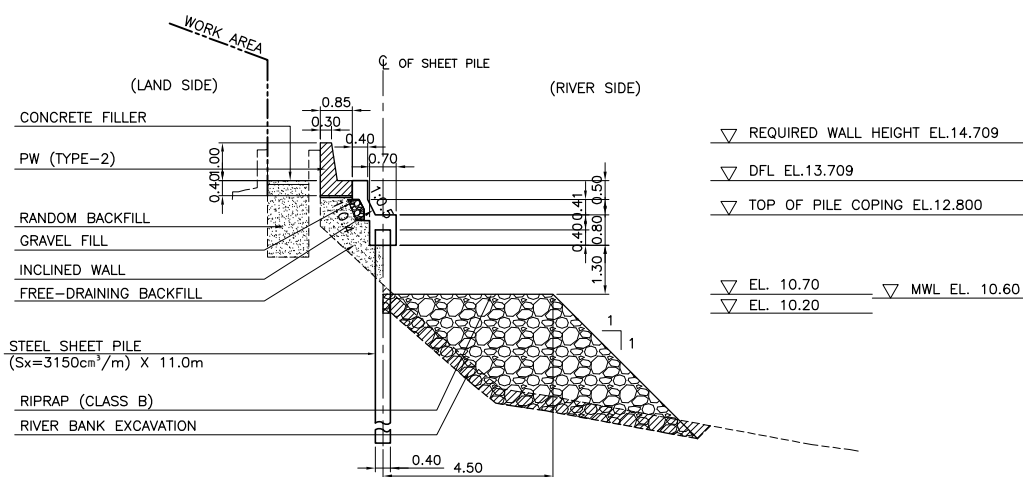
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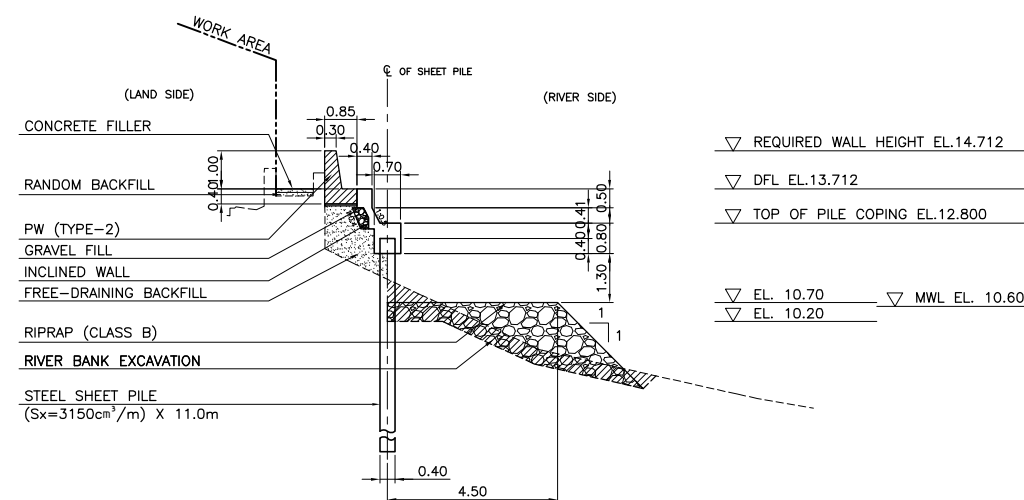
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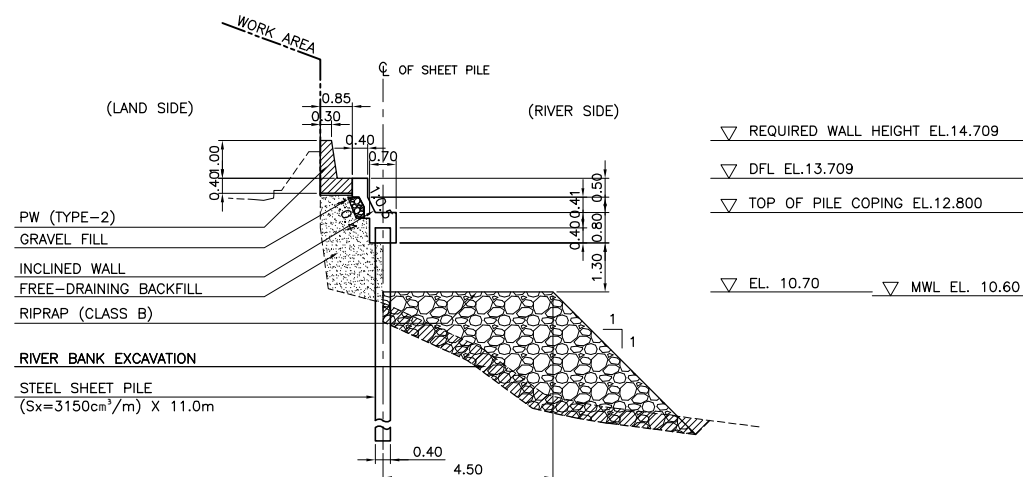
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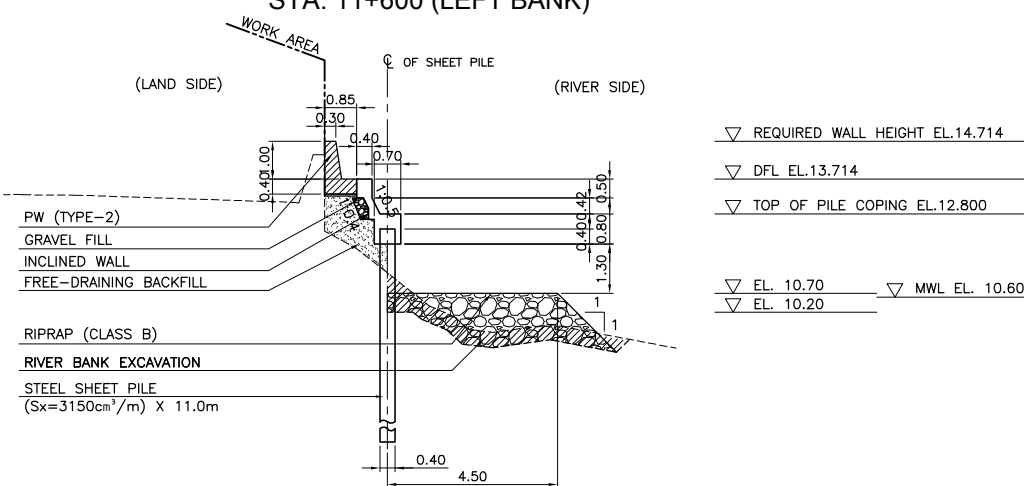
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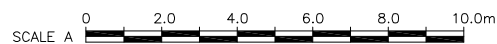
STA. 11+600 (LEFT BANK)



STA. 11+550 (LEFT BANK)



STA. 11+625 (LEFT BANK)



REVISIONS			
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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN



DESIGNED BY: EIJI MOKI
STRUCTURAL ENGINEER I

CHECKED BY: TOSHIKI KAWAKAMI
THE CHECKER

SUBMITTED BY: SHUJI KAKU
TEAM LEADER



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS
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REPUBLIC OF THE PHILIPPINES

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CHIEF, HYDRAULIC DIVISION, BOD

RECOMMENDING APPROVAL: PATRICK B. GATAN
PROJECT DIRECTOR
PMO - MFCP

GILBERTO S. REYES
DIRECTOR
BOD

SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY

APPROVED BY: RAUL C. ASIS
UNDERSECRETARY
FOR TECHNICAL SERVICES

ROGELIO L. SINGSON
SECRETARY

PROJECT & LOCATION

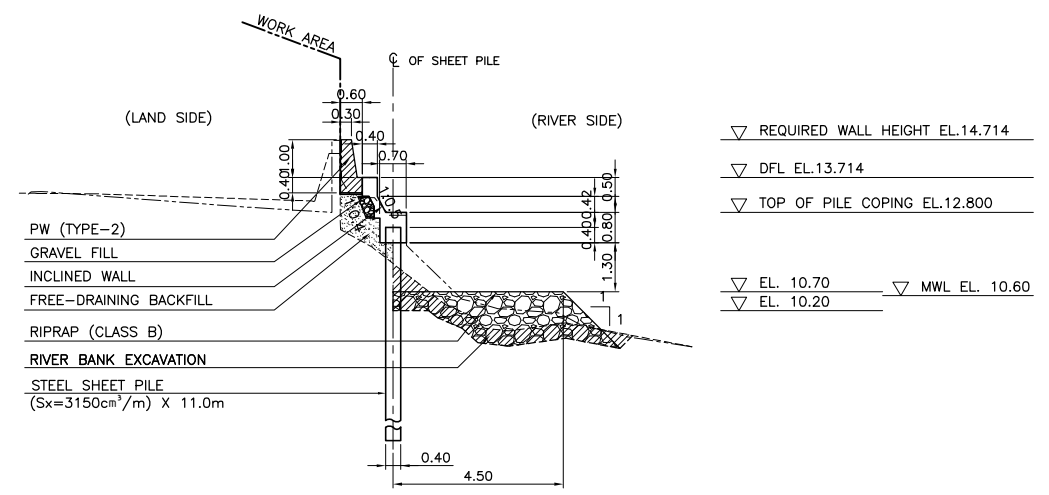
PASIG-MARIKINA
RIVER CHANNEL
IMPROVEMENT
PROJECT (PHASE III),
METRO MANILA

SHEET CONTENTS

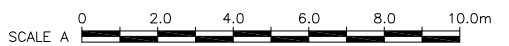
CROSS SECTION
STA 11+500 ~ STA 11+625
(LEFT BANK)

SHEET NO.

UP-RS
CS 05



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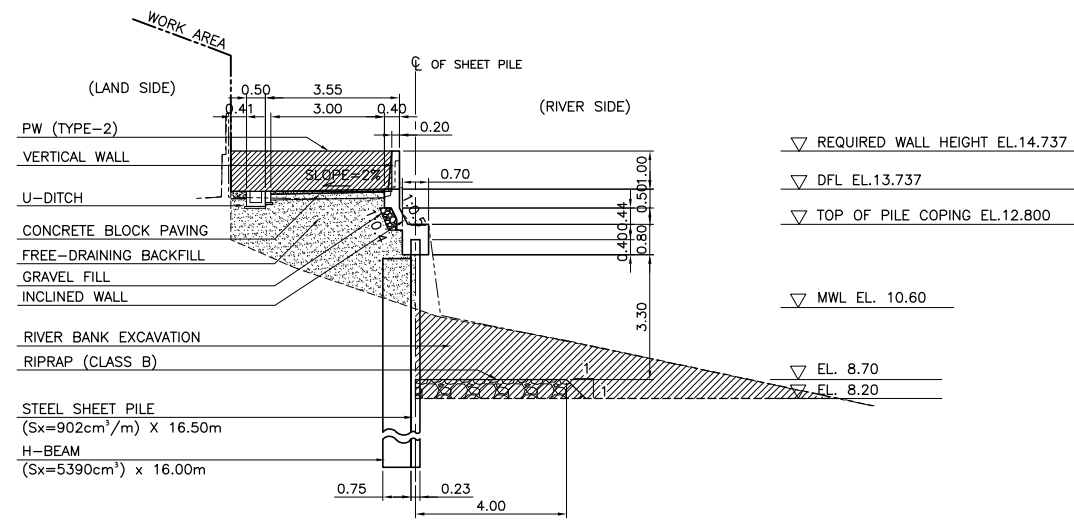


REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

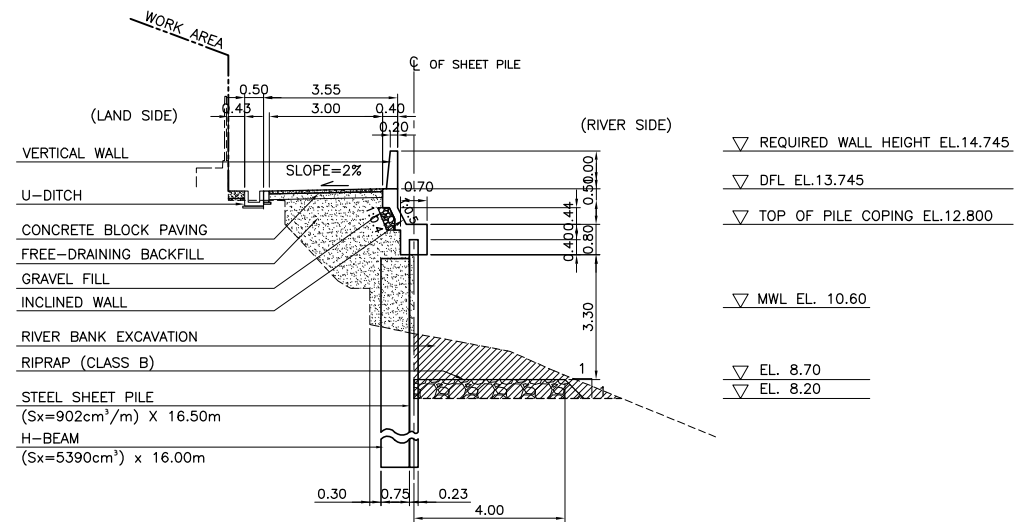
NOTE:
 PURSUANT TO SECTION 4 OF ANNEX 'A' OF THE REVISED IMPLEMENTING RULES AND REGULATIONS OF R.A. 9184, APPROVAL BY THE AUTHORIZED DPWH OFFICIALS OF DETAILED ENGINEERING SURVEYS AND DESIGN UNDERTAKEN BY CONSULTANTS NEITHER DIMINISHES THE RESPONSIBILITY OF THE LATTER FOR THE TECHNICAL INTEGRITY OF THE SURVEYS AND DESIGN NOR TRANSFER ANY PART OF THAT RESPONSIBILITY TO THE APPROVING OFFICIALS.

SHUJI KAKU
TEAM LEADER

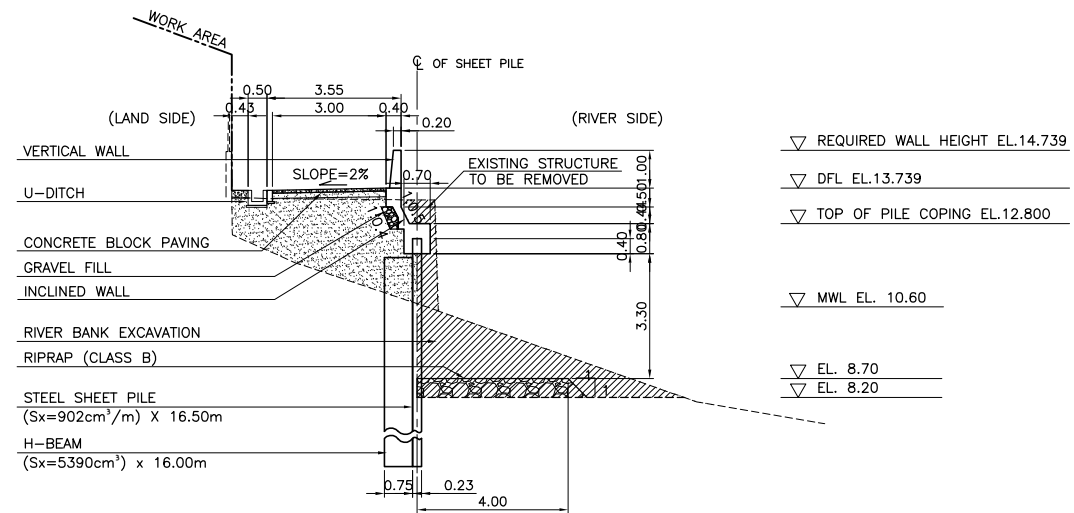
JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN			REPUBLIC OF THE PHILIPPINES				PROJECT & LOCATION	SHEET CONTENTS	SHEET NO.	
	DESIGNED BY:	CHECKED BY:	SUBMITTED BY:		REVIEWED BY:	RECOMMENDING APPROVAL :	APPROVED BY:	PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA	CROSS SECTION STA 11+628 (LEFT BANK)	
	EIJI MOKI STRUCTURAL ENGINEER I	TOSHIKI KAWAKAMI THE CHECKER	SHUJI KAKU TEAM LEADER		PERFECTO L. ZAPLAN, JR. CHIEF, HYDRAULIC DIVISION, BOD	PATRICK B. GATAN PROJECT DIRECTOR PMO - MFCP	GILBERTO S. REYES DIRECTOR BOD			



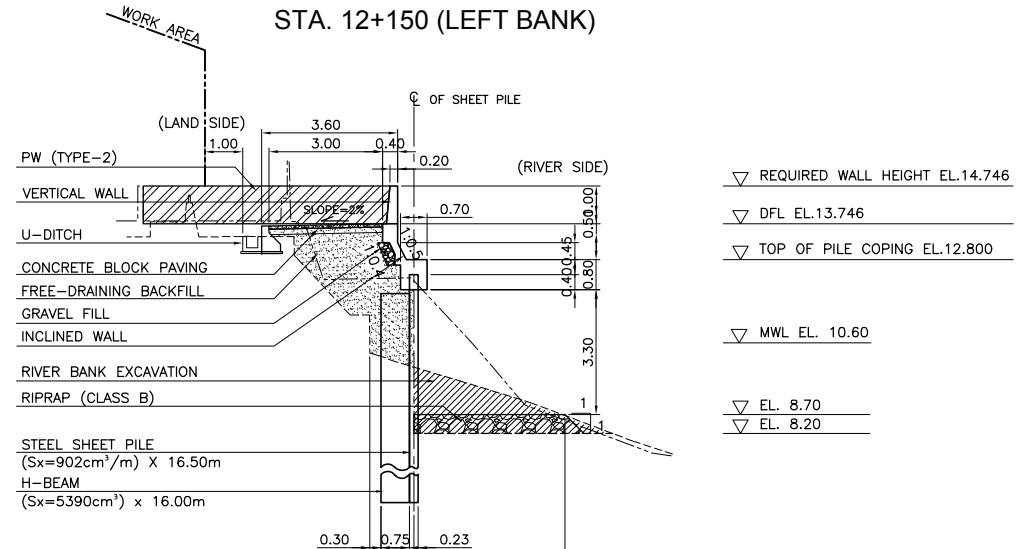
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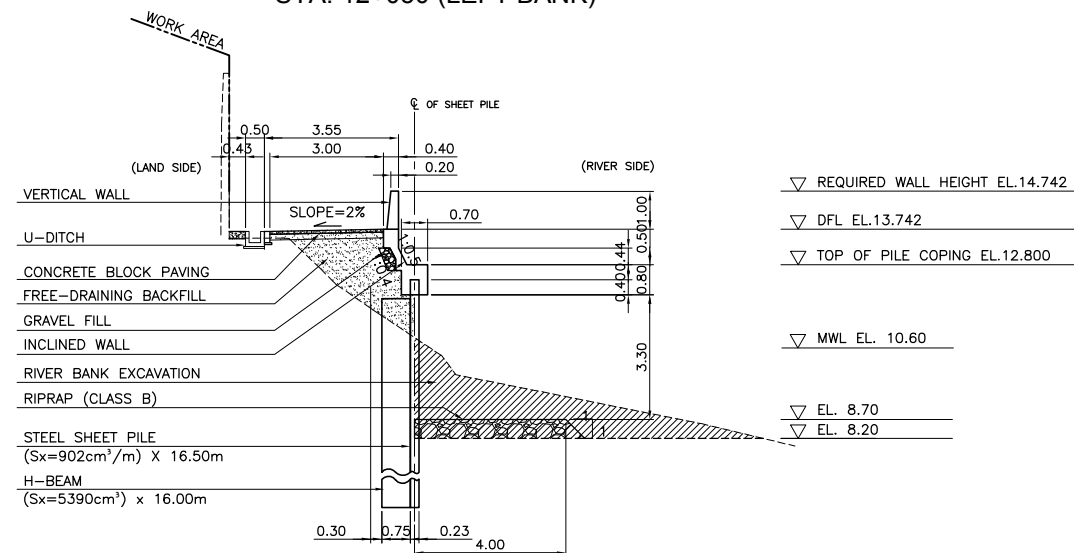
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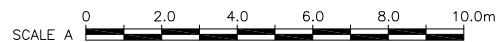
STA. 12+050 (LEFT BANK)



STA. 12+173 (LEFT BANK)



STA. 12+100 (LEFT BANK)



REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

NOTE:
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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN

REPUBLIC OF THE PHILIPPINES



DESIGNED BY: EIJI MOKI
STRUCTURAL ENGINEER I

CHECKED BY: TOSHIKI KAWAKAMI
THE CHECKER

SUBMITTED BY: SHUJI KAKU
TEAM LEADER



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS
AND HIGHWAYS

REVIEWED BY: PERFECTO L. ZAPLAN, JR.
CHIEF, HYDRAULIC DIVISION, BOD

RECOMMENDING APPROVAL: PATRICK B. GATAN
PROJECT DIRECTOR
PMO - MFCP

GILBERTO S. REYES
DIRECTOR
BOD

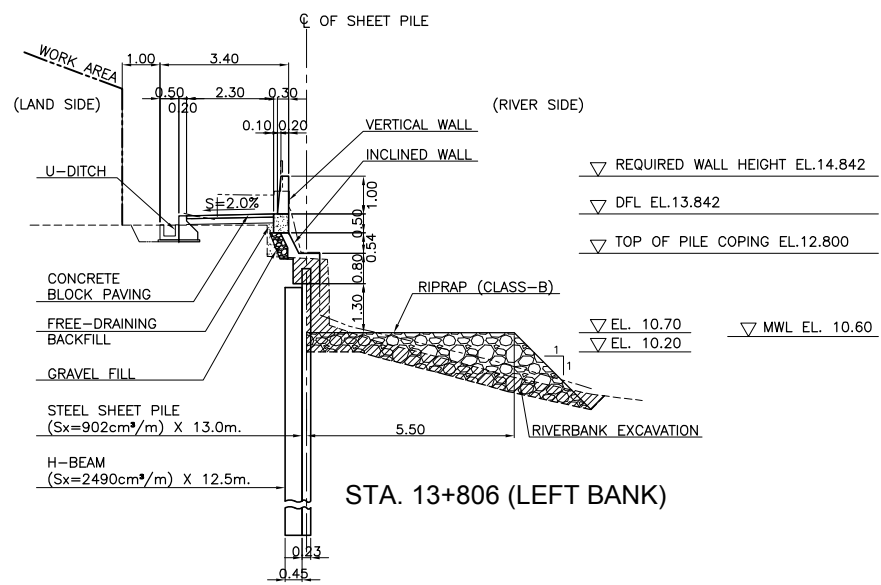
APPROVED BY: RAUL C. ASIS
UNDERSECRETARY
FOR TECHNICAL SERVICES

ROGELIO L. SINGSON
SECRETARY

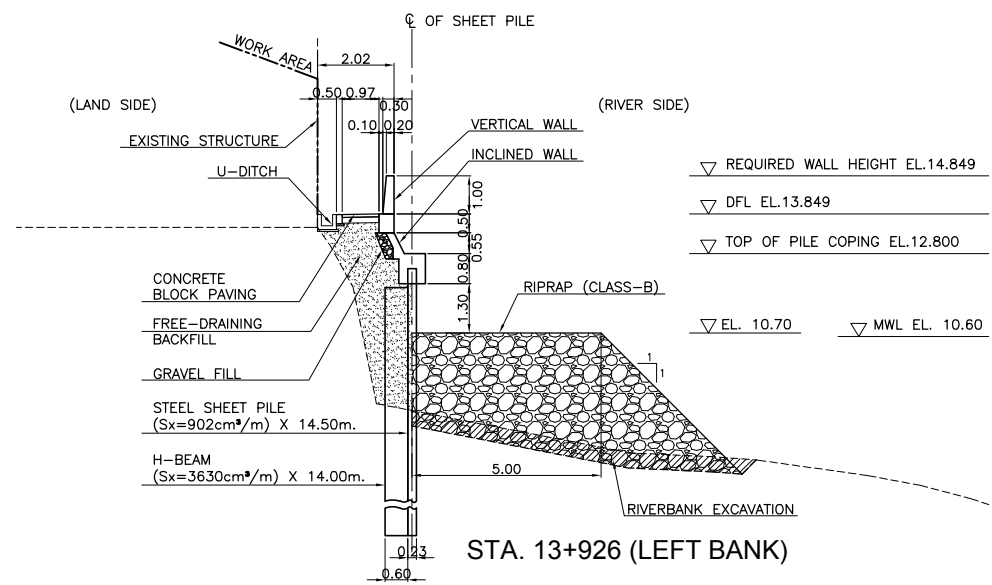
PROJECT & LOCATION: PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA

SHEET CONTENTS: CROSS SECTION STA 12+024 ~ STA 12+173 (LEFT BANK)

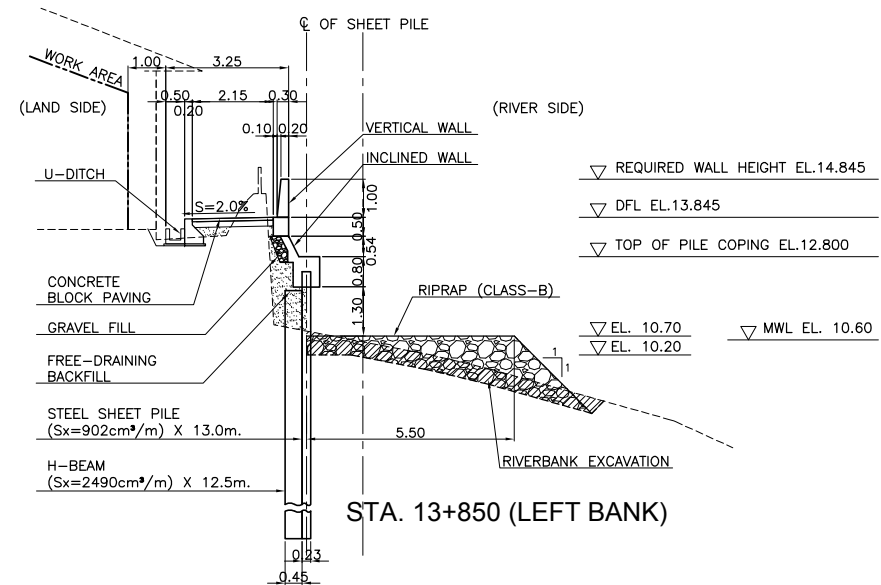
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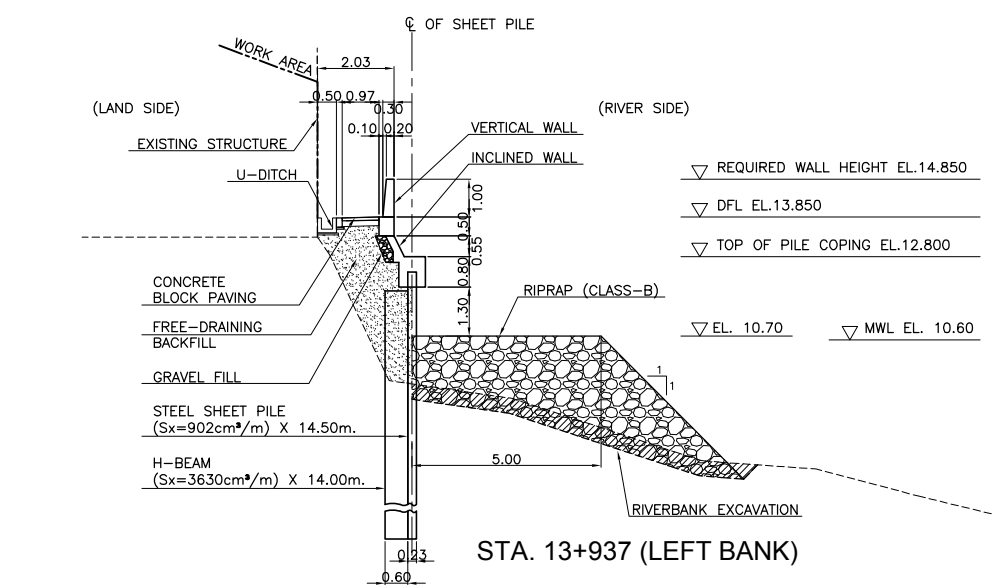
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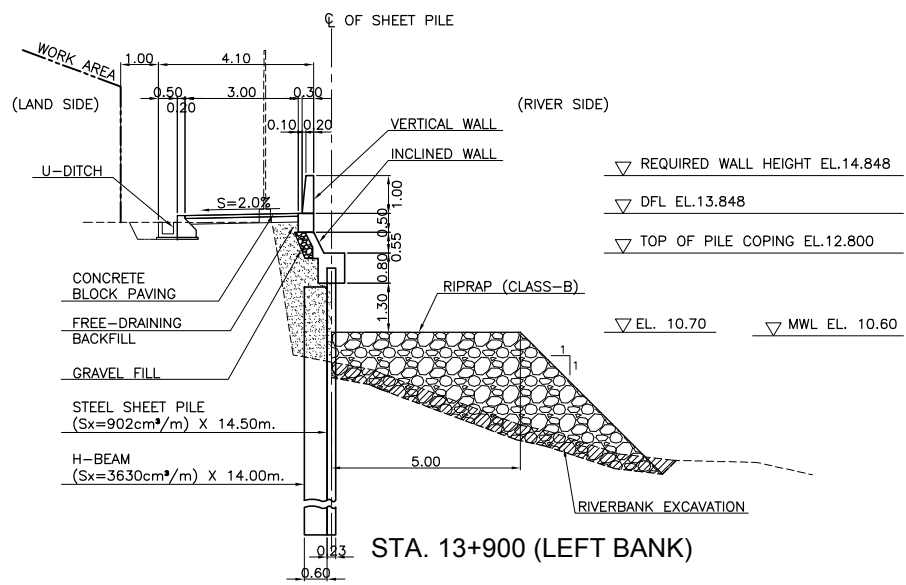
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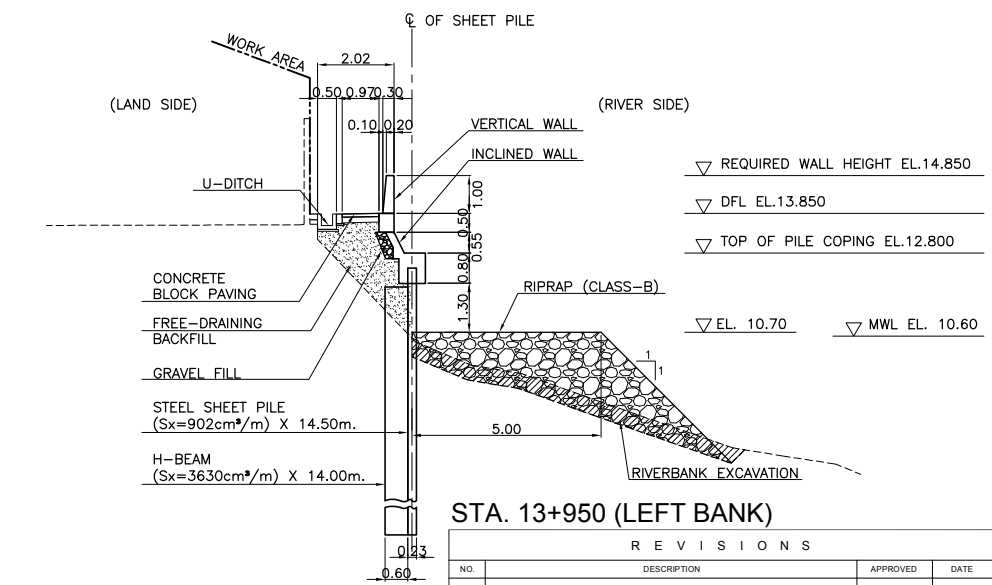
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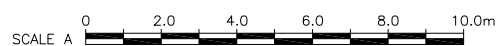
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STA. 13+900 (LEFT BANK)



STA. 13+950 (LEFT BANK)

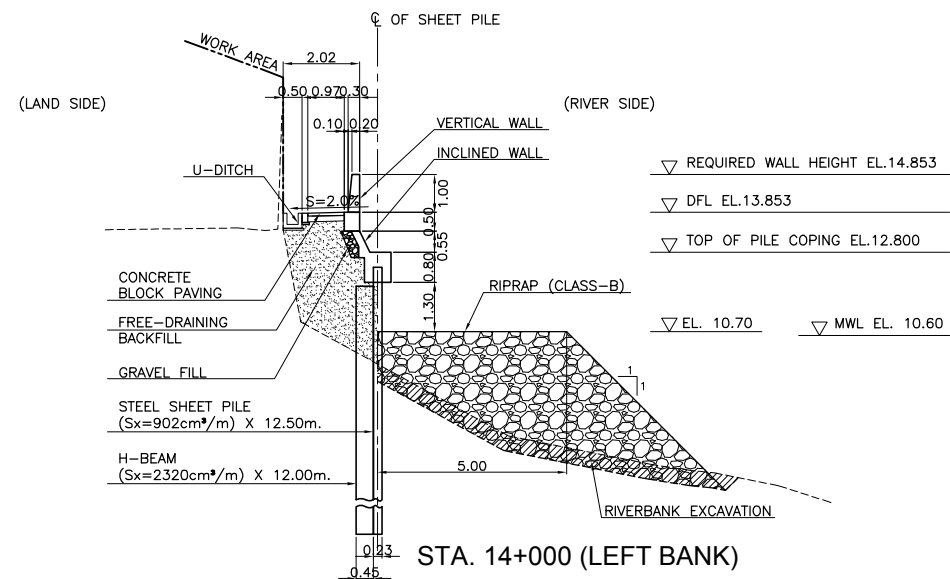


REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

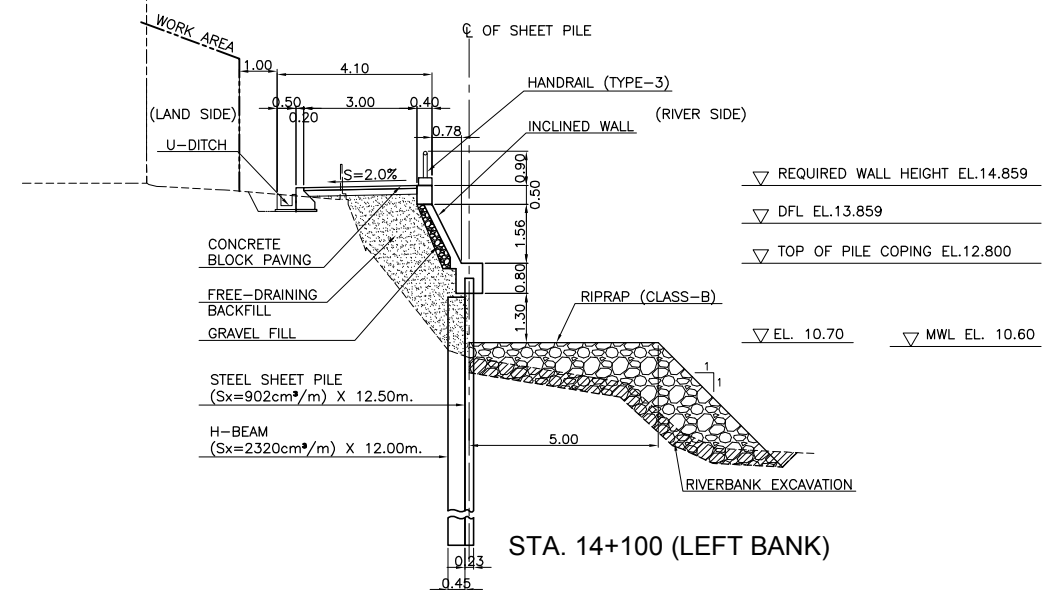
NOTE:
PURSUANT TO SECTION 4 OF ANNEX 'A' OF THE REVISED IMPLEMENTING RULES AND REGULATIONS OF R.A. 9184, APPROVAL BY THE AUTHORIZED DPWH OFFICIALS OF DETAILED ENGINEERING SURVEYS AND DESIGN UNDERTAKEN BY CONSULTANTS NEITHER DIMINISHES THE RESPONSIBILITY OF THE LATTER FOR THE TECHNICAL INTEGRITY OF THE SURVEYS AND DESIGN NOR TRANSFER ANY PART OF THAT RESPONSIBILITY TO THE APPROVING OFFICIALS.

SHUJI KAKU
TEAM LEADER

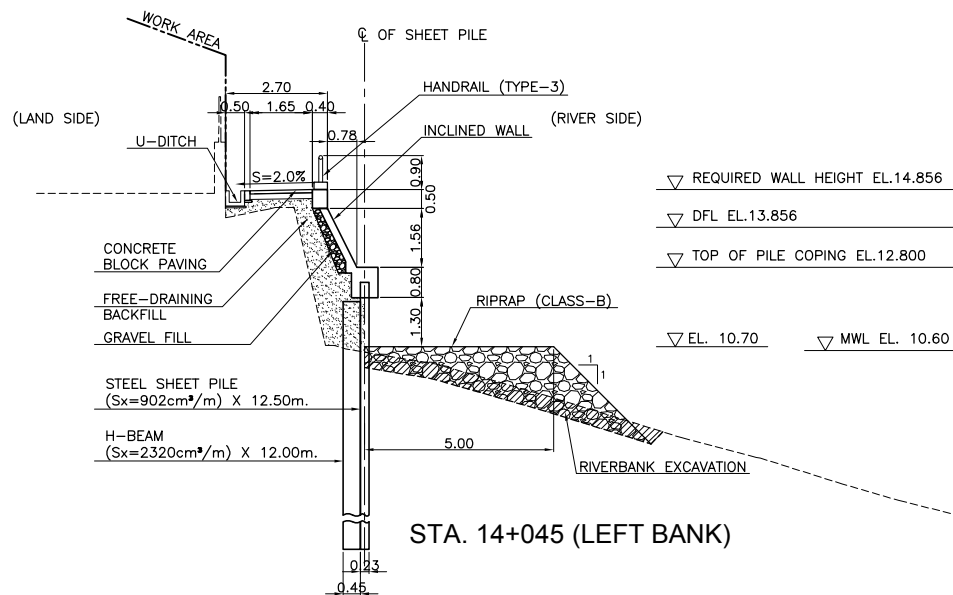
JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN			REPUBLIC OF THE PHILIPPINES				PROJECT & LOCATION		SHEET CONTENTS		SHEET NO.
	DESIGNED BY:	CHECKED BY:	SUBMITTED BY:		REVIEWED BY:	RECOMMENDING APPROVAL:	APPROVED BY:		PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA	CROSS SECTION STA 13+806 ~ STA13+950 LEFT BANK	
	EIJI MOKI STRUCTURAL ENGINEER I	TOSHIKI KAWAKAMI THE CHECKER	SHUJI KAKU TEAM LEADER		PERFECTO L. ZAPLAN, JR. CHIEF, HYDRAULIC DIVISION, BOD	PATRICK B. GATAN PROJECT DIRECTOR PMO - MFCP	GILBERTO S. REYES DIRECTOR BOD	SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY RAUL C. ASIS UNDERSECRETARY FOR TECHNICAL SERVICES			



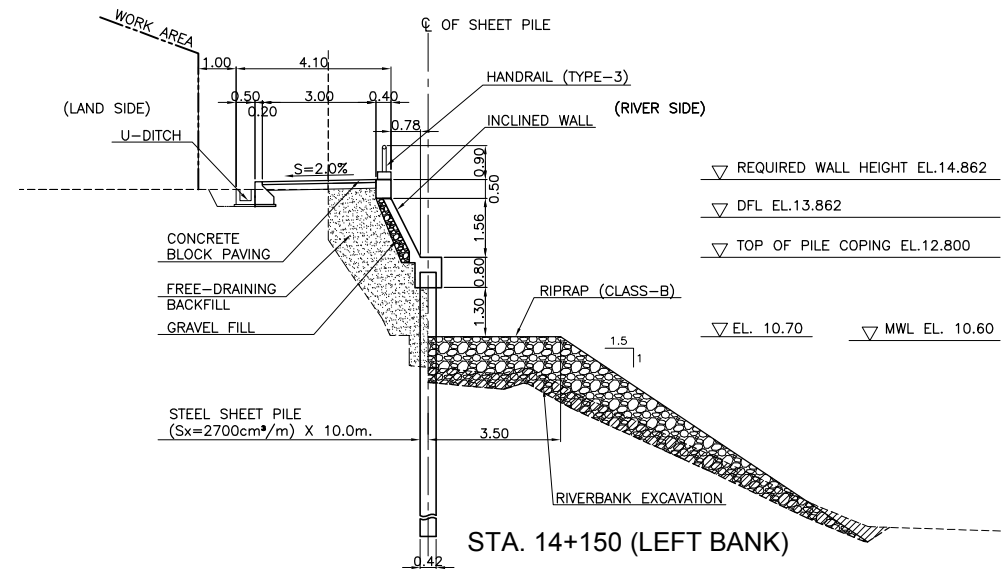
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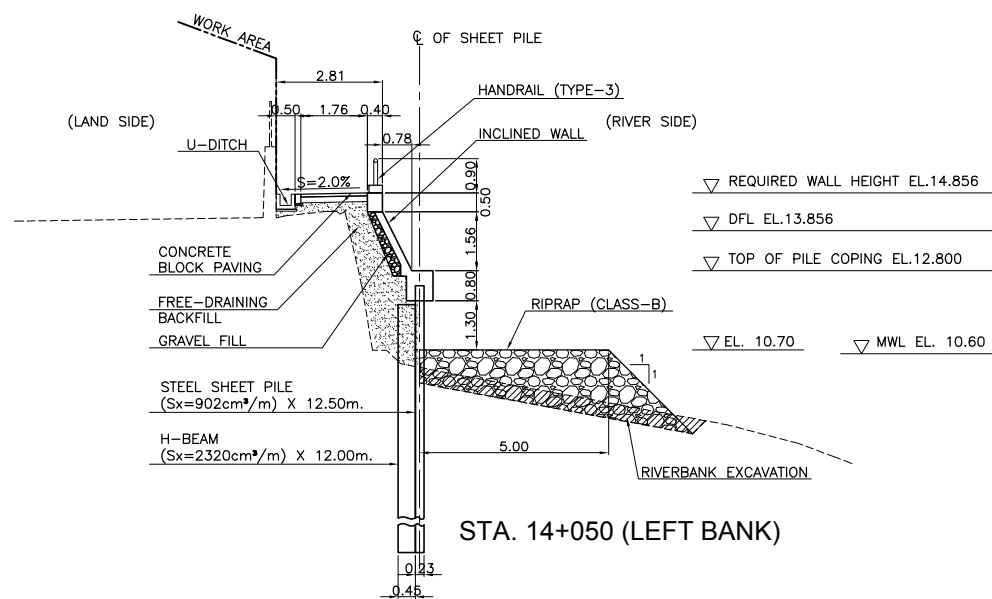
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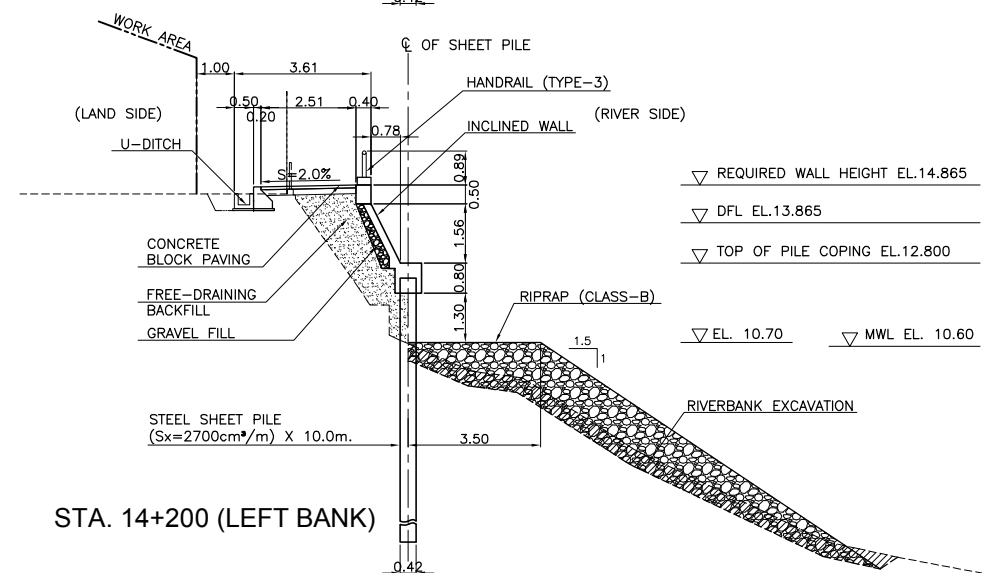
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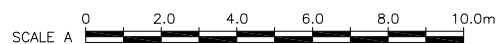
STA. 14+150 (LEFT BANK)



STA. 14+050 (LEFT BANK)



STA. 14+200 (LEFT BANK)



REVISIONS			
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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN



DESIGNED BY:	CHECKED BY:	SUBMITTED BY:
EIJI MOKI STRUCTURAL ENGINEER I	TOSHIKI KAWAKAMI THE CHECKER	SHUJI KAKU TEAM LEADER



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS
AND HIGHWAYS

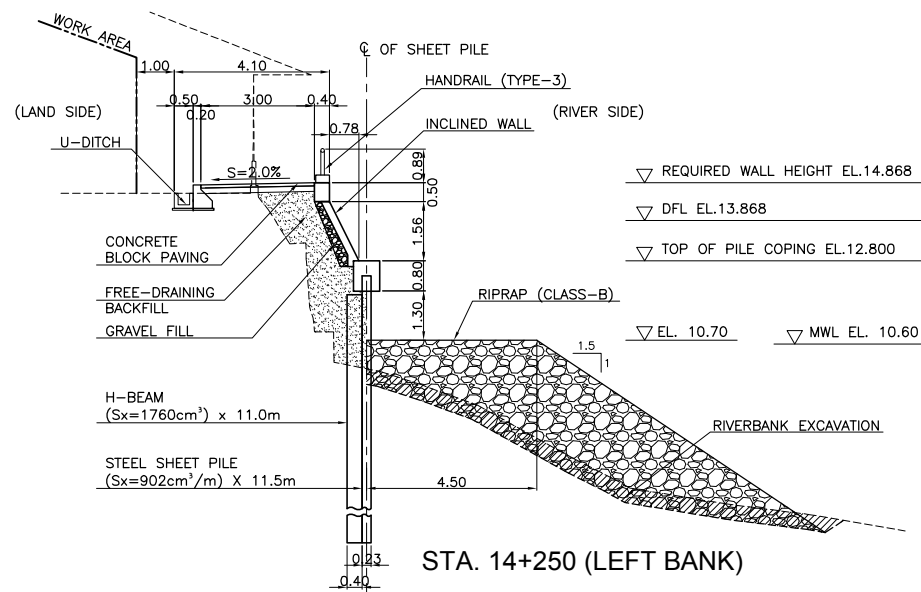
REPUBLIC OF THE PHILIPPINES

REVIEWED BY:	RECOMMENDING APPROVAL:	APPROVED BY:
PERFECTO L. ZAPLAN, JR. CHIEF, HYDRAULIC DIVISION, BOD	PATRICK B. GATAN PROJECT DIRECTOR PMO - MFCP	GILBERTO S. REYES DIRECTOR BOD
SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY	SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY	RAUL C. ASIS UNDERSECRETARY FOR TECHNICAL SERVICES
		ROGELIO L. SINGSON SECRETARY

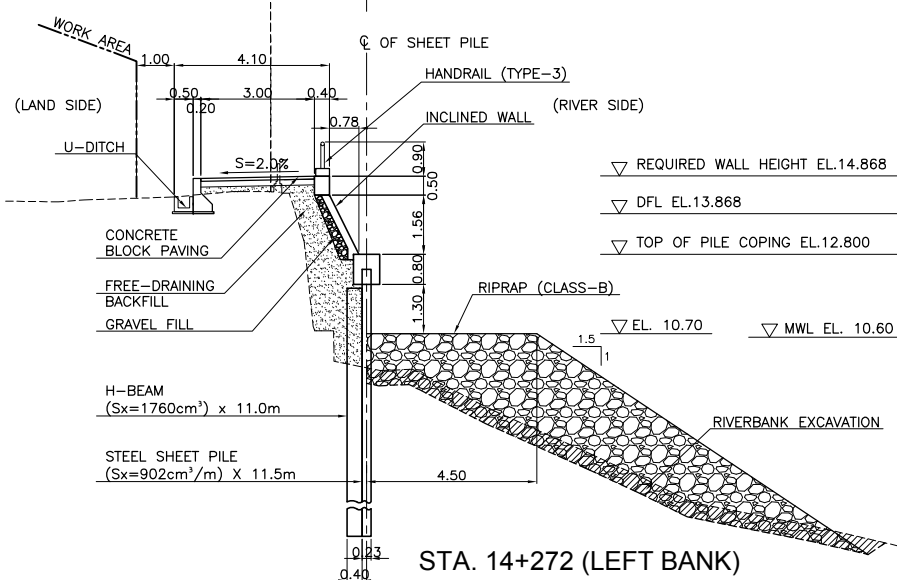
PROJECT & LOCATION
PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA

SHEET CONTENTS
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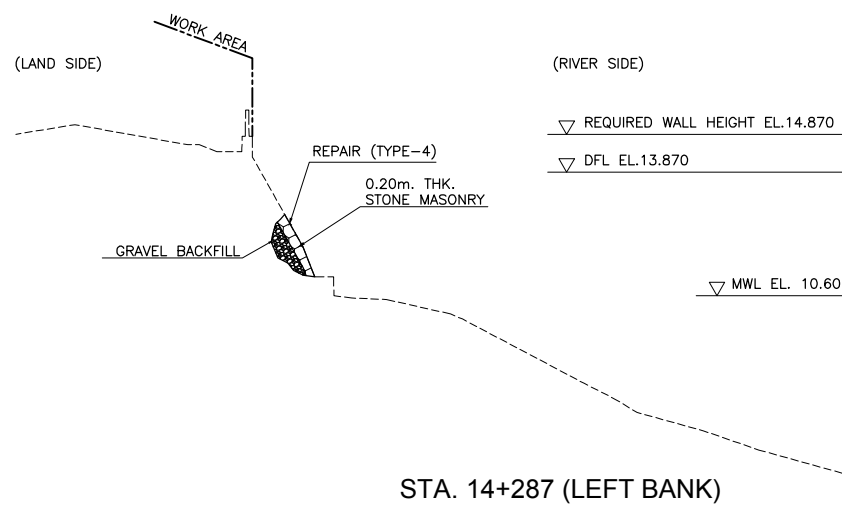
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UP-RS
CS 09



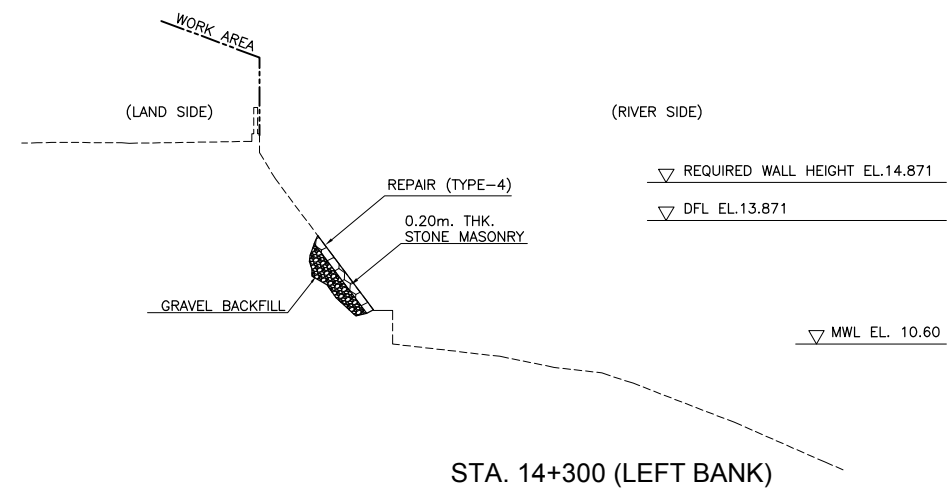
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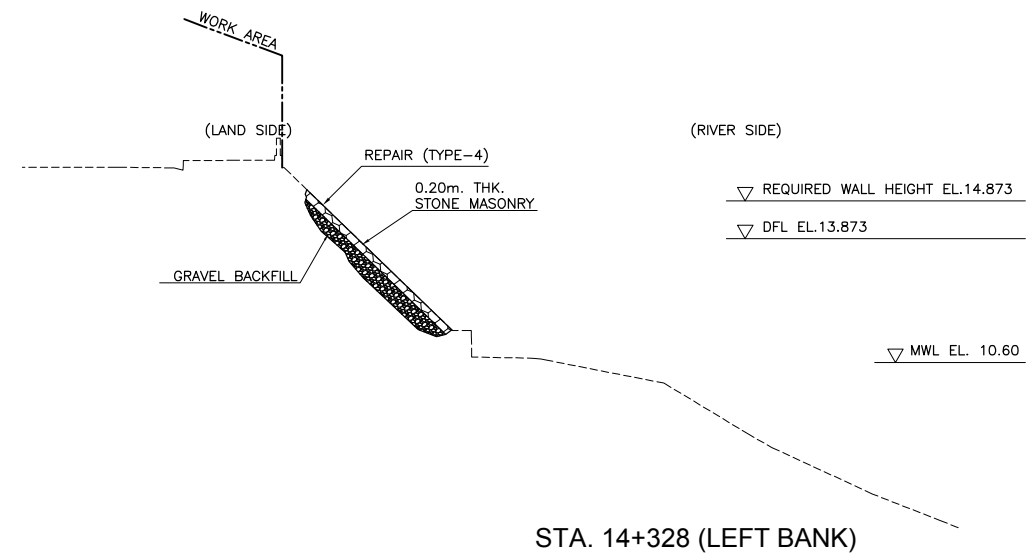
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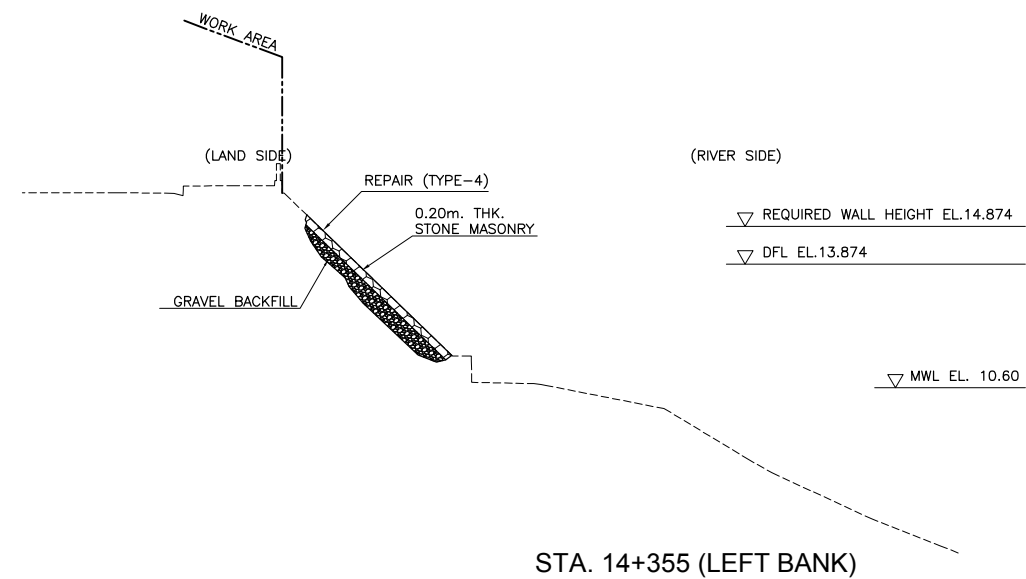
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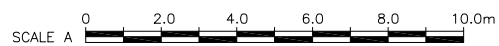
STA. 14+300 (LEFT BANK)



STA. 14+328 (LEFT BANK)



STA. 14+355 (LEFT BANK)



REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN



DESIGNED BY: EIJI MOKI
STRUCTURAL ENGINEER I

CHECKED BY: TOSHIKI KAWAKAMI
THE CHECKER

SUBMITTED BY: SHUJI KAKU
TEAM LEADER



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS
AND HIGHWAYS

REPUBLIC OF THE PHILIPPINES

REVIEWED BY: PERFECTO L. ZAPLAN, JR.
CHIEF, HYDRAULIC DIVISION, BOD

RECOMMENDING APPROVAL: PATRICK B. GATAN
PROJECT DIRECTOR
PMO - MFCP

GILBERTO S. REYES
DIRECTOR
BOD

APPROVED BY: RAUL C. ASIS
UNDERSECRETARY
FOR TECHNICAL SERVICES

ROGELIO L. SINGSON
SECRETARY

PROJECT & LOCATION

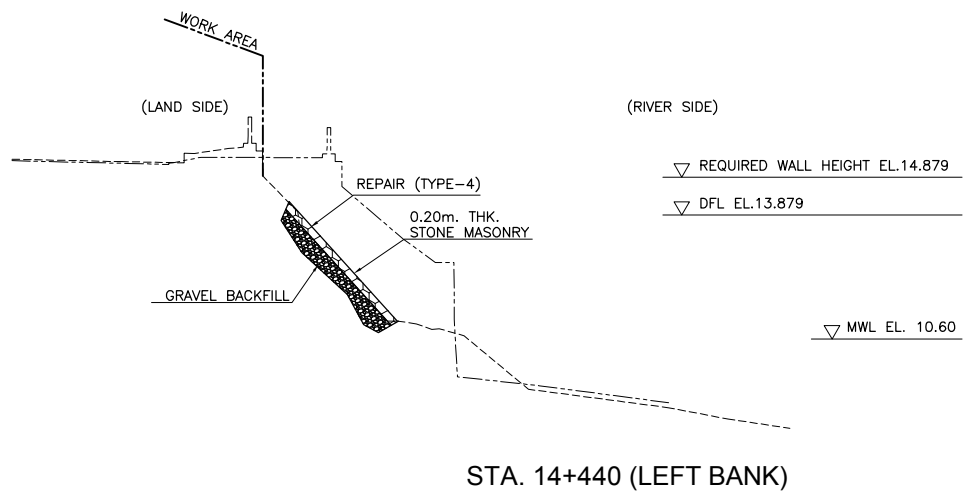
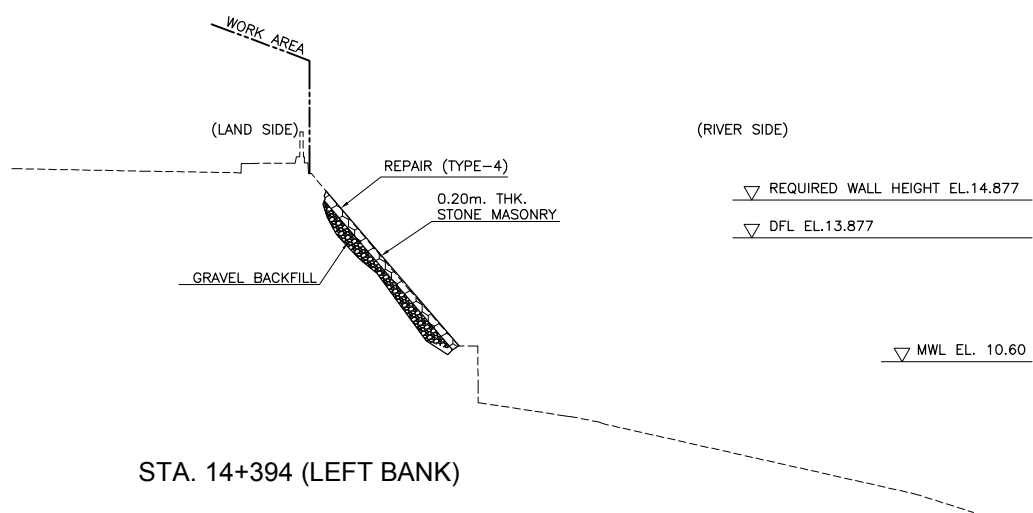
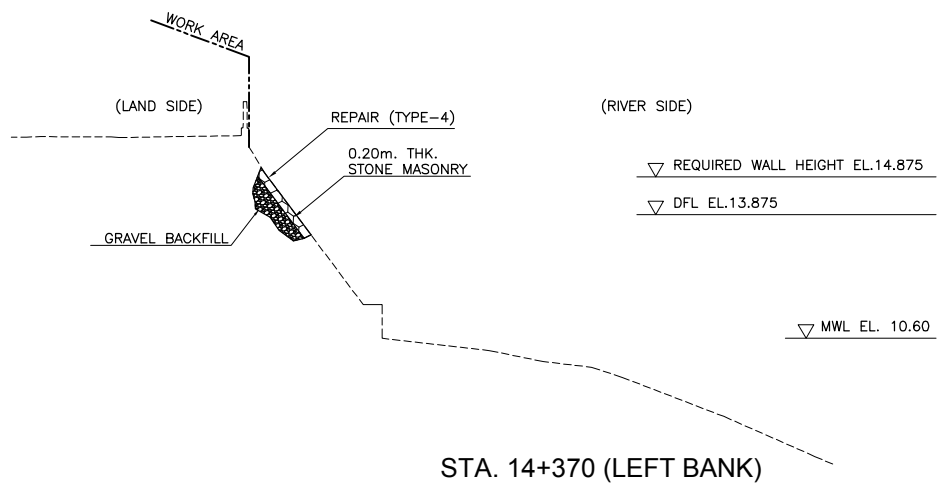
PASIG-MARIKINA
RIVER CHANNEL
IMPROVEMENT
PROJECT (PHASE III),
METRO MANILA

SHEET CONTENTS

CROSS SECTION
STA 14+250 - STA 14+355
LEFT BANK

SHEET NO.

UP-RS
CS 10



R E V I S I O N S			
NO.	DESCRIPTION	APPROVED	DATE

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SHUJI KAKU
 TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN

REPUBLIC OF THE PHILIPPINES



DESIGNED BY: EIJI MOKI
 STRUCTURAL ENGINEER I

CHECKED BY: TOSHIKI KAWAKAMI
 THE CHECKER

SUBMITTED BY: SHUJI KAKU
 TEAM LEADER



REPUBLIC OF THE PHILIPPINES
 DEPARTMENT OF PUBLIC WORKS
 AND HIGHWAYS

REVIEWED BY: PERFECTO L. ZAPLAN, JR.
 CHIEF, HYDRAULIC DIVISION, BOD

RECOMMENDING APPROVAL: PATRICK B. GATAN
 PROJECT DIRECTOR
 PMO - MFCP

GILBERTO S. REYES
 DIRECTOR
 BOD

SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY

APPROVED BY: RAUL C. ASIS
 UNDERSECRETARY FOR TECHNICAL SERVICES

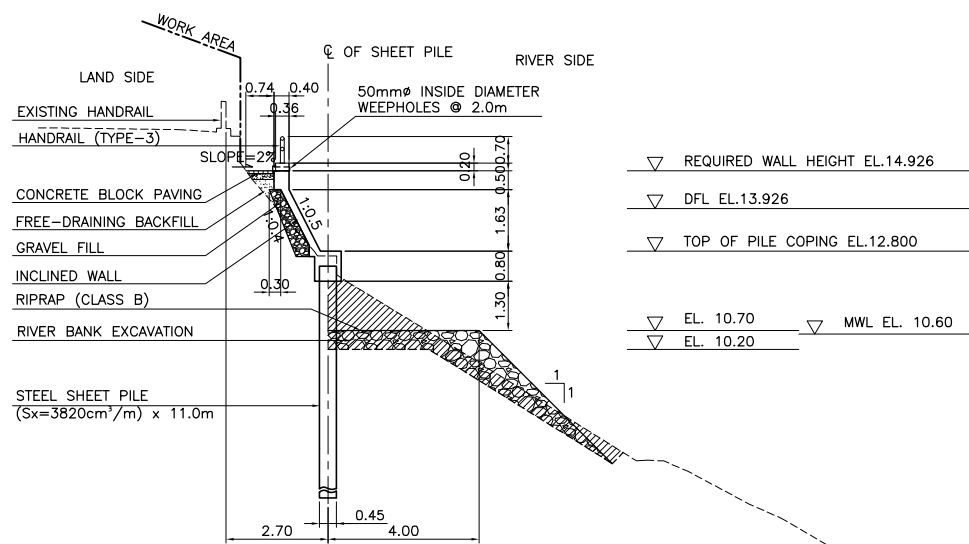
SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY

ROGELIO L. SINGSON
 SECRETARY

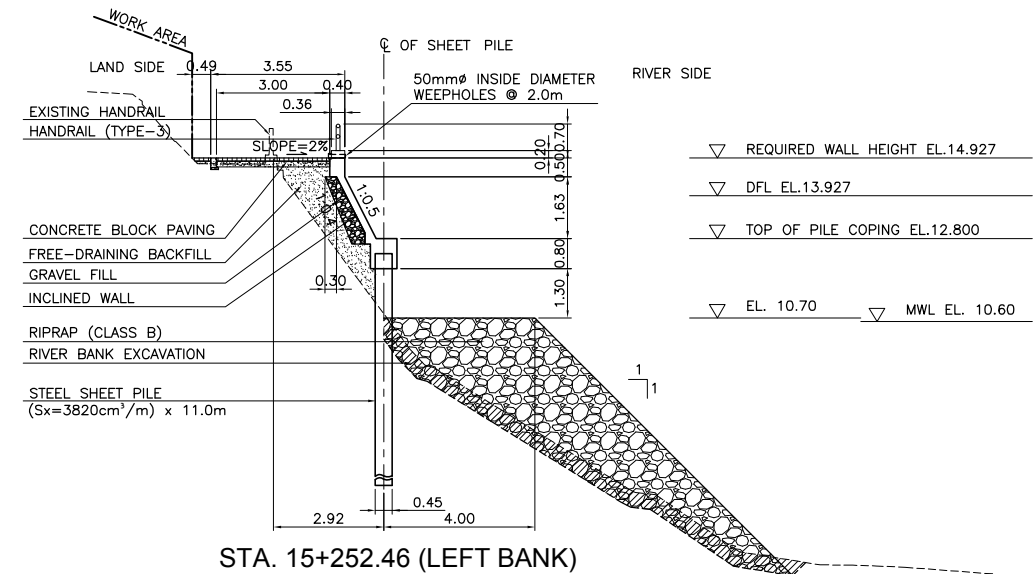
PROJECT & LOCATION: PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA

SHEET CONTENTS: CROSS SECTION STA 14+370 - STA 14+440 LEFT BANK

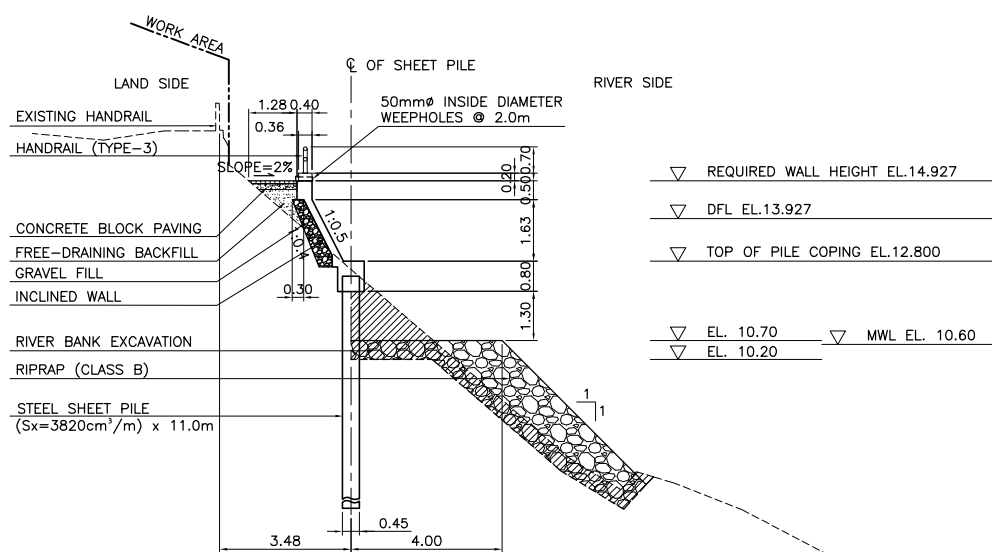
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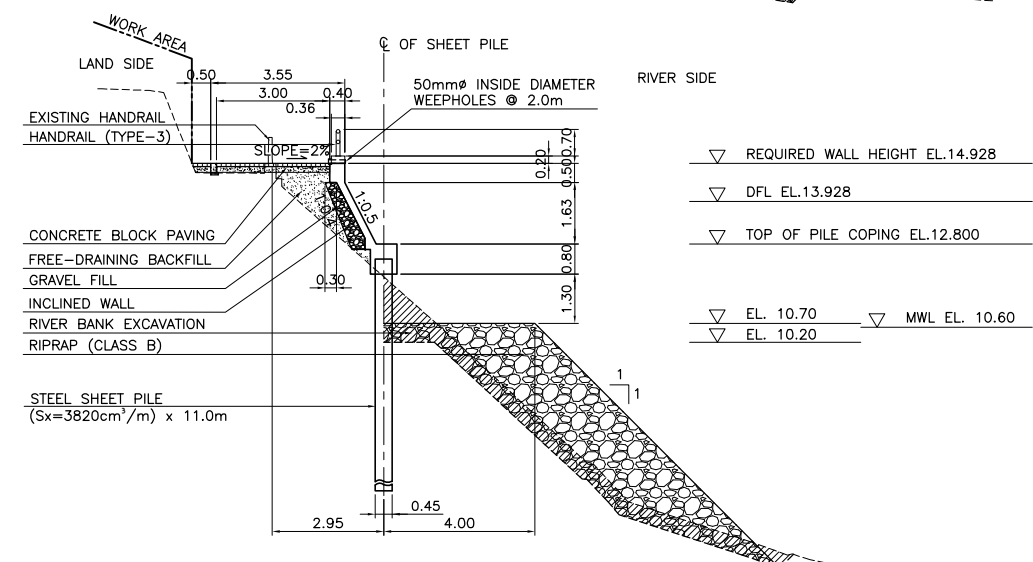
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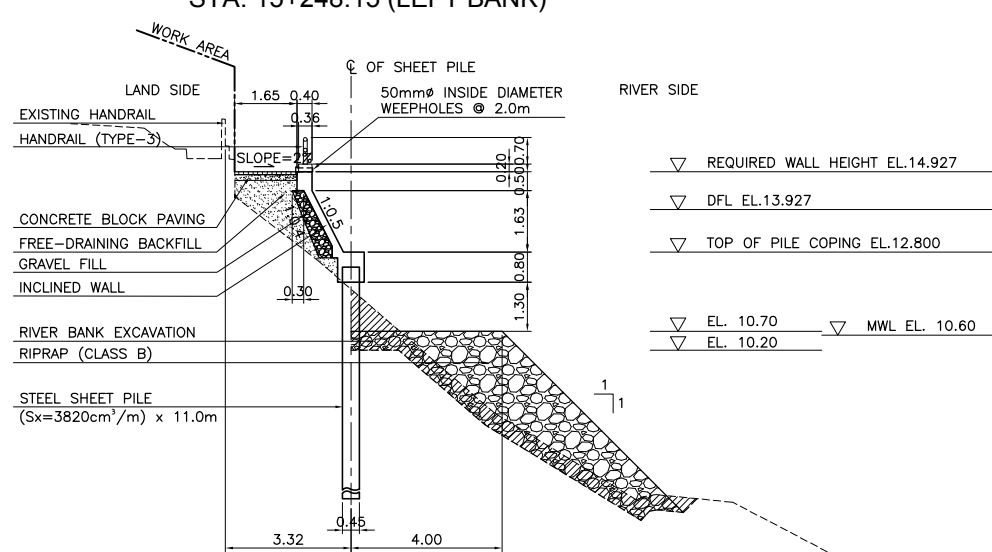
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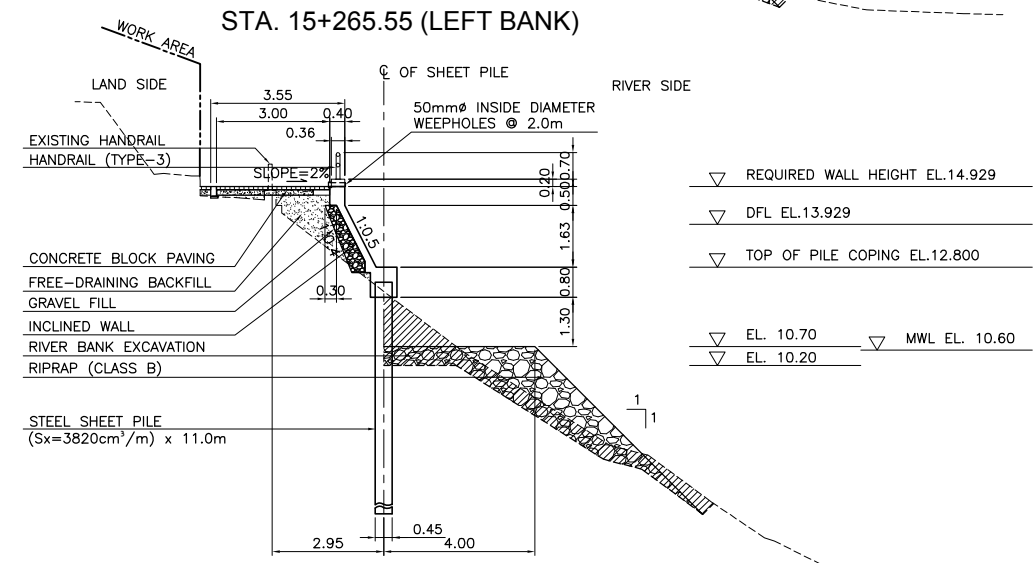
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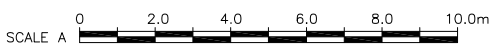
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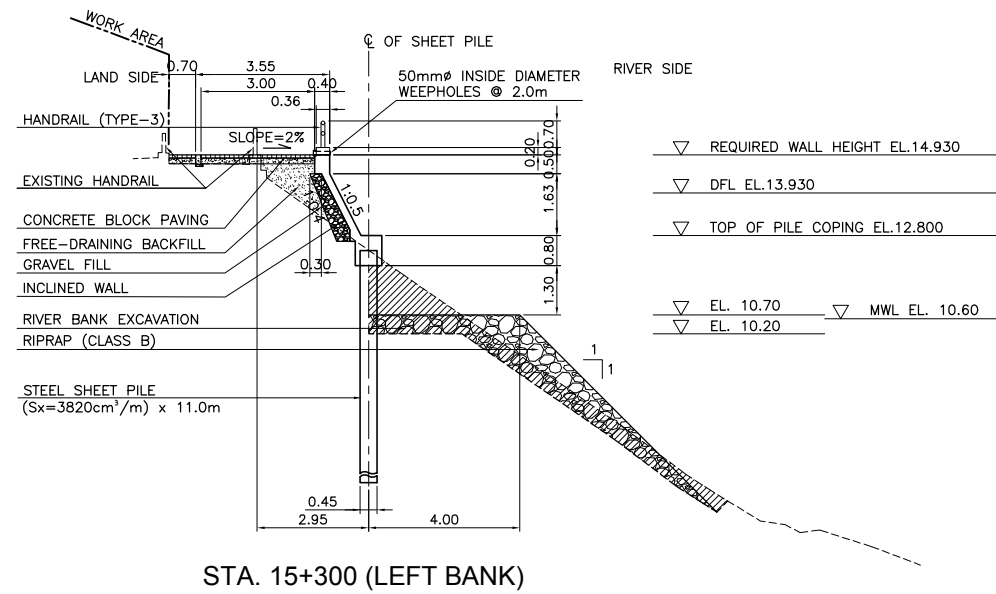


REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

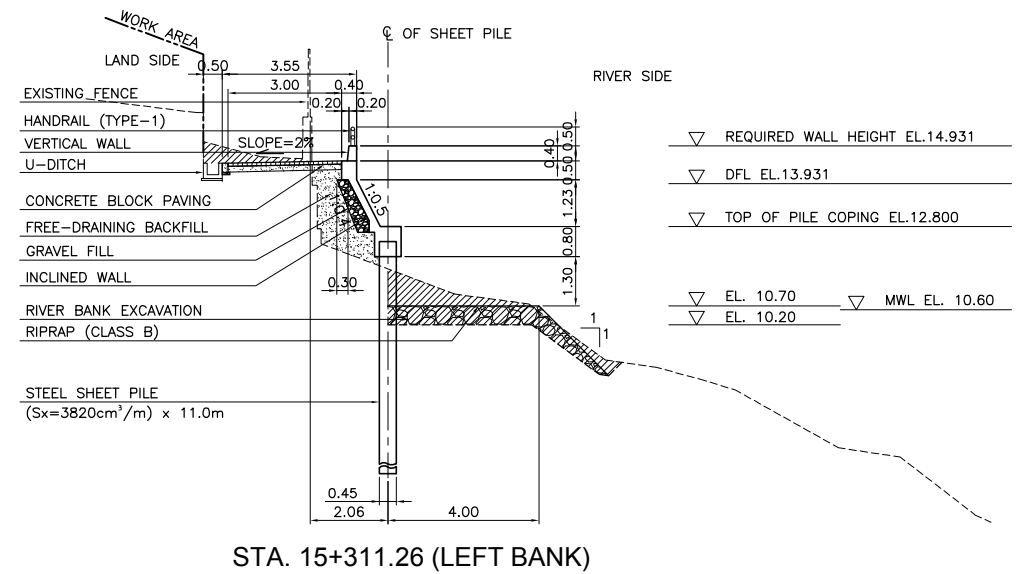
NOTE:
PURSUANT TO SECTION 4 OF ANNEX 'A' OF THE REVISED IMPLEMENTING RULES AND REGULATIONS OF R.A. 9184, APPROVAL BY THE AUTHORIZED DPWH OFFICIALS OF DETAILED ENGINEERING SURVEYS AND DESIGN UNDERTAKEN BY CONSULTANTS NEITHER DIMINISHES THE RESPONSIBILITY OF THE LATTER FOR THE TECHNICAL INTEGRITY OF THE SURVEYS AND DESIGN NOR TRANSFER ANY PART OF THAT RESPONSIBILITY TO THE APPROVING OFFICIALS.

SHUJI KAKU
TEAM LEADER

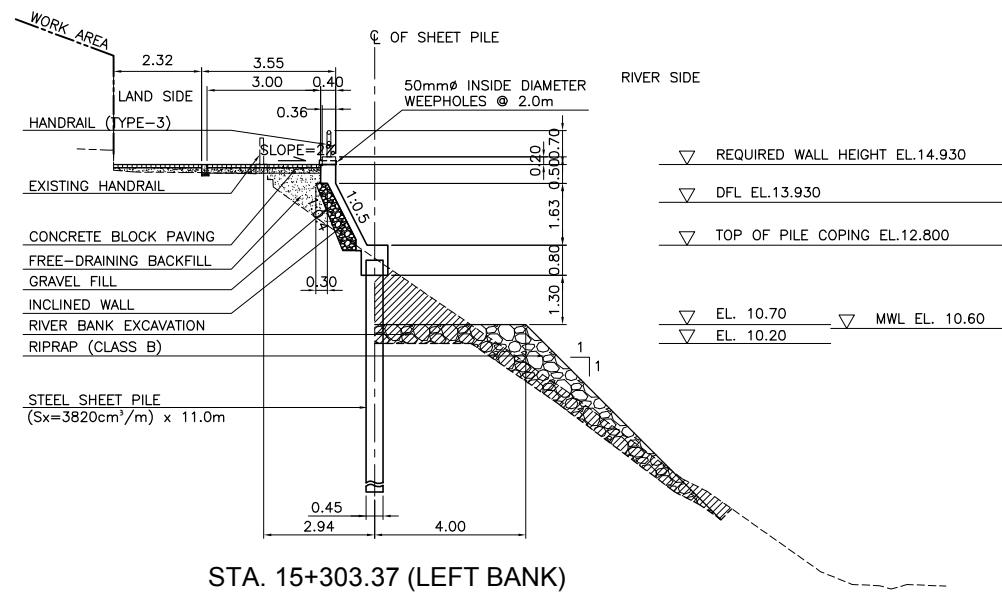
JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN			REPUBLIC OF THE PHILIPPINES			PROJECT & LOCATION		SHEET CONTENTS		SHEET NO.	
	DESIGNED BY:	CHECKED BY:			REVIEWED BY:	RECOMMENDING APPROVAL:	PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA		CROSS SECTION STA 15+236- STA 15+280.78 LEFT BANK		
	EIJI MOKI STRUCTURAL ENGINEER I	TOSHIKI KAWAKAMI THE CHECKER			SHUJI KAKU TEAM LEADER	PERFECTO L. ZAPLAN, JR. CHIEF, HYDRAULIC DIVISION, BOD					



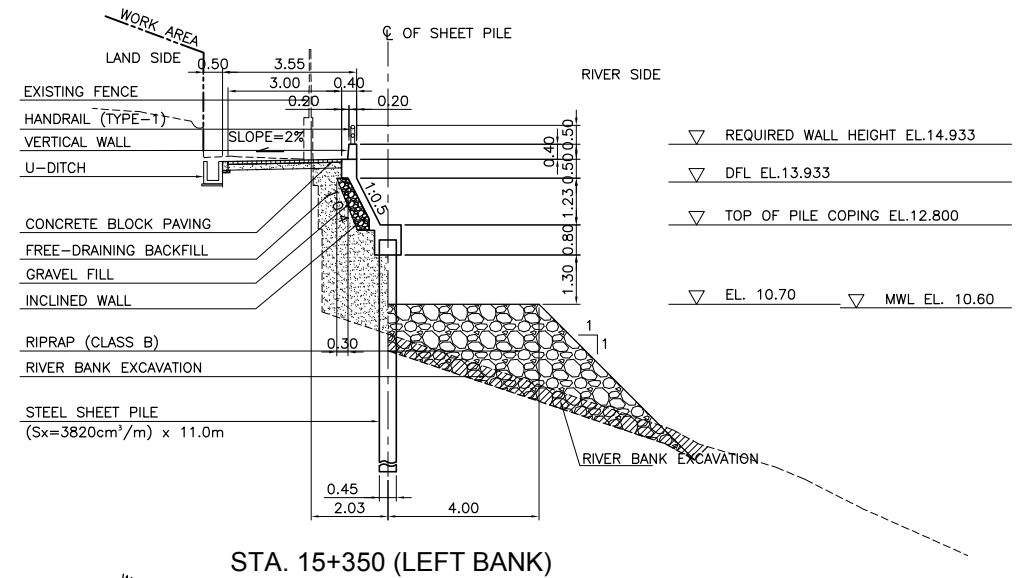
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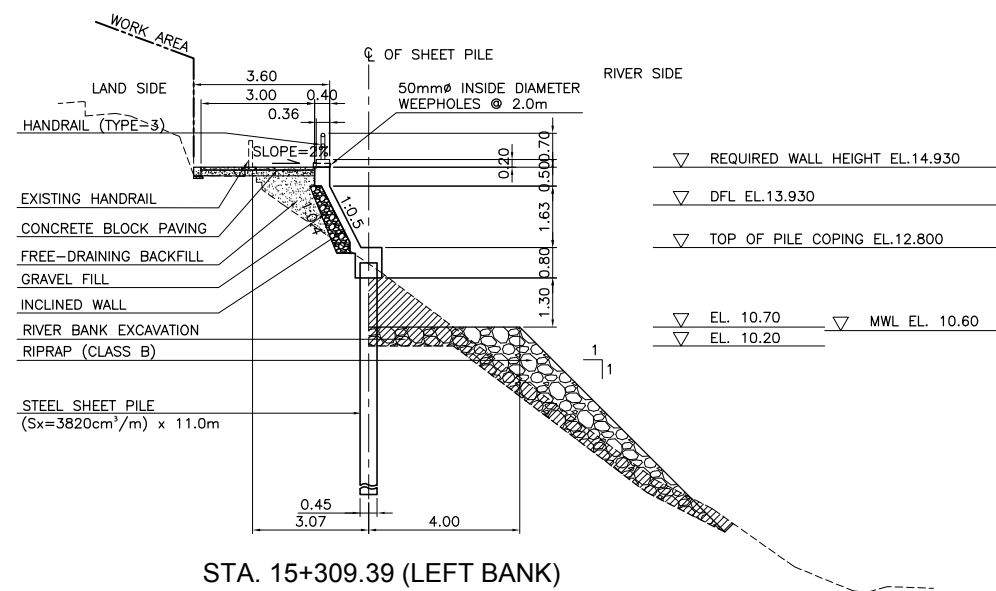
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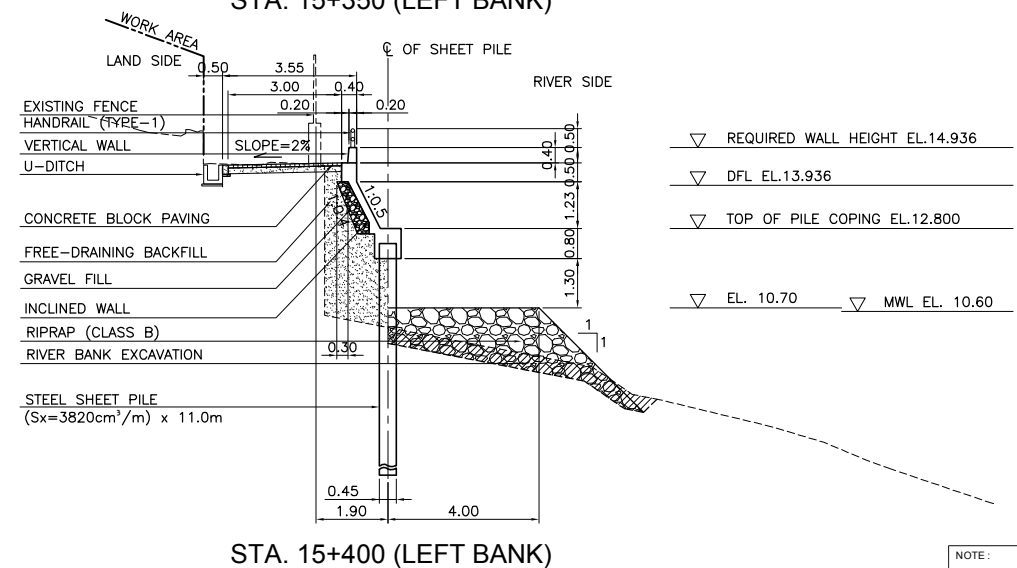
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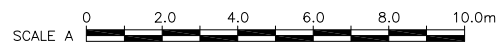
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STA. 15+309.39 (LEFT BANK)



STA. 15+400 (LEFT BANK)

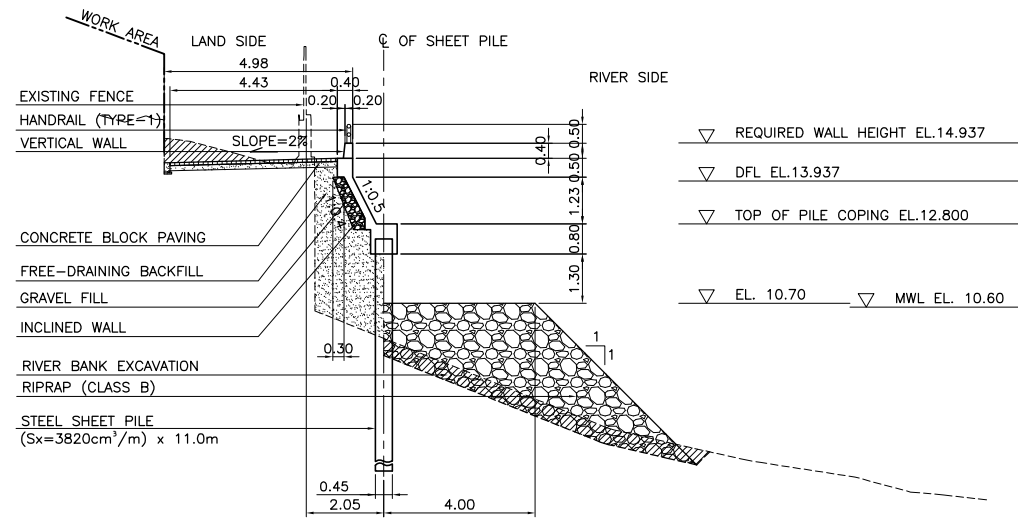


REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

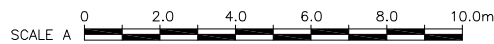
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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN			REPUBLIC OF THE PHILIPPINES				PROJECT & LOCATION		SHEET CONTENTS		SHEET NO.	
	DESIGNED BY:	CHECKED BY:	SUBMITTED BY:		REVIEWED BY:	RECOMMENDING APPROVAL:		APPROVED BY:		PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA	CROSS SECTION STA 15+300 - STA 15+400 LEFT BANK	
	EIJI MOKI STRUCTURAL ENGINEER I	TOSHIKI KAWAKAMI THE CHECKER	SHUJI KAKU TEAM LEADER		PERFECTO L. ZAPLAN, JR. CHIEF, HYDRAULIC DIVISION, BOD	PATRICK B. GATAN PROJECT DIRECTOR PMO - MFCP	GILBERTO S. REYES DIRECTOR BOD	SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY	SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY			



STA. 15+424 (LEFT BANK)



REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

NOTE:
PURSUANT TO SECTION 4 OF ANNEX 'A' OF THE REVISED IMPLEMENTING RULES AND REGULATIONS OF R.A. 9184, APPROVAL BY THE AUTHORIZED DPWH OFFICIALS OF DETAILED ENGINEERING SURVEYS AND DESIGN UNDERTAKEN BY CONSULTANTS NEITHER DIMINISHES THE RESPONSIBILITY OF THE LATTER FOR THE TECHNICAL INTEGRITY OF THE SURVEYS AND DESIGN NOR TRANSFER ANY PART OF THAT RESPONSIBILITY TO THE APPROVING OFFICIALS.

SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN

REPUBLIC OF THE PHILIPPINES



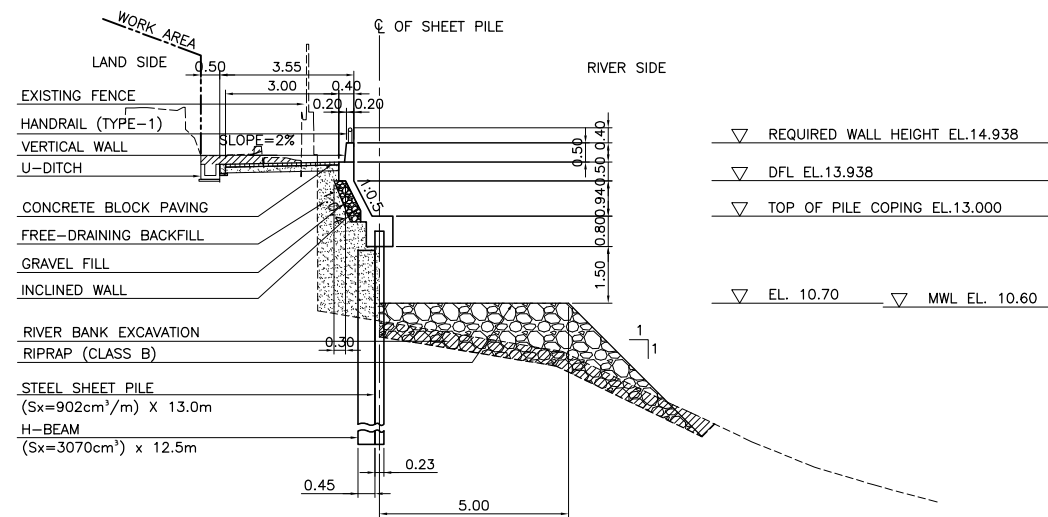
DESIGNED BY: EJI MOKI STRUCTURAL ENGINEER I	CHECKED BY: TOSHIKI KAWAKAMI THE CHECKER	SUBMITTED BY: SHUJI KAKU TEAM LEADER
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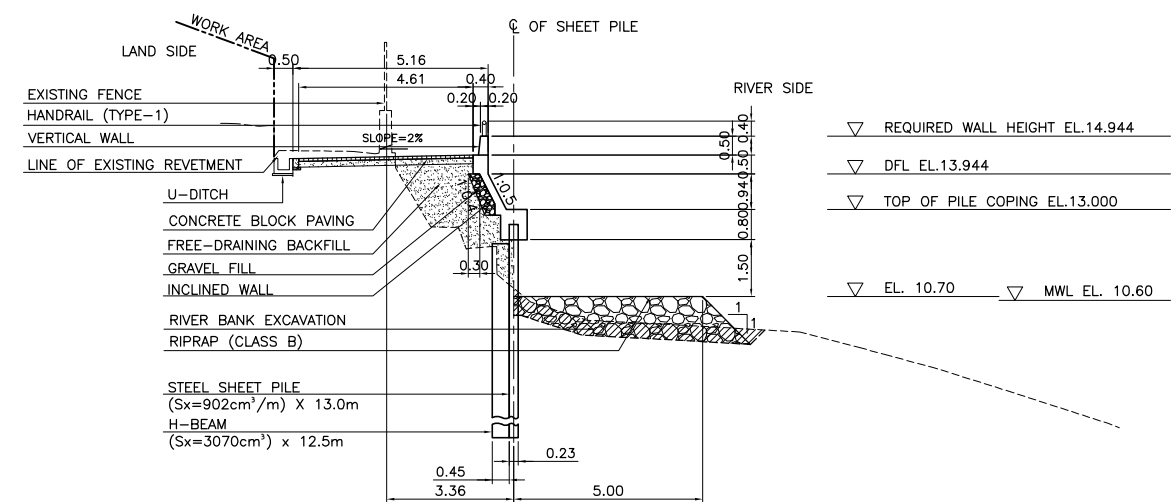
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS
AND HIGHWAYS

REVIEWED BY: PERFECTO L. ZAPLAN, JR. CHIEF, HYDRAULIC DIVISION, BOD	RECOMMENDING APPROVAL: PATRICK B. GATAN PROJECT DIRECTOR PMO - MFCP	GILBERTO S. REYES DIRECTOR BOD	SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY RAUL C. ASIS UNDERSECRETARY FOR TECHNICAL SERVICES	APPROVED BY: SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY ROGELIO L. SINGSON SECRETARY
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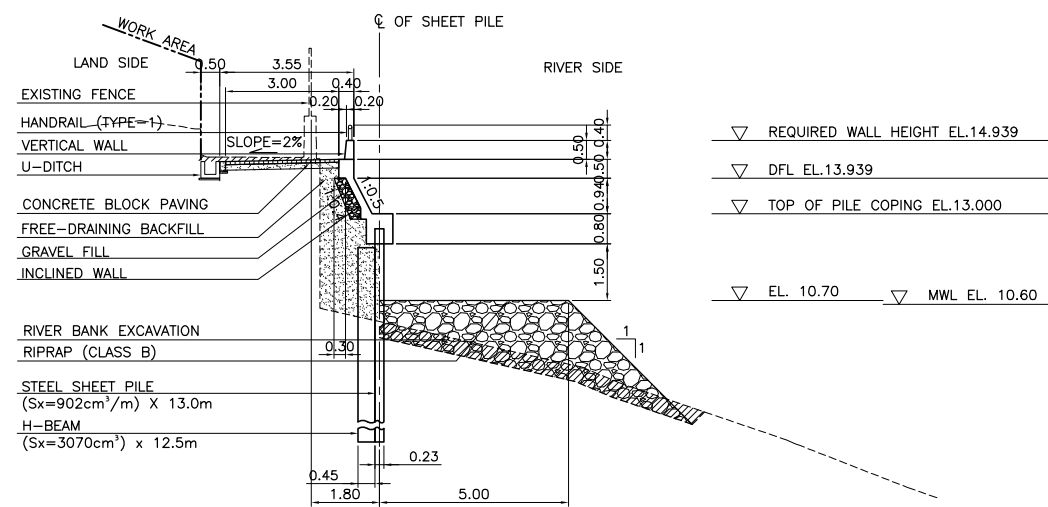
PROJECT & LOCATION PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA	SHEET CONTENTS CROSS SECTION STA 15+424 LEFT BANK	SHEET NO. UP-RS CS 14
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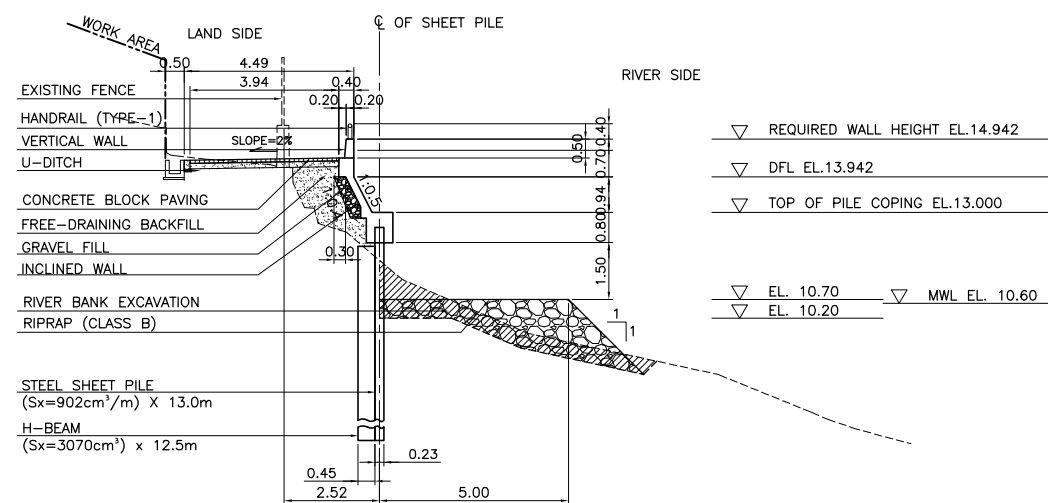
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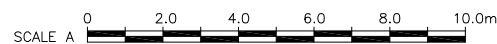
STA. 15+548 (LEFT BANK)



STA. 15+450 (LEFT BANK)



STA. 15+500 (LEFT BANK)



REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

NOTE:
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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN



DESIGNED BY:	CHECKED BY:	SUBMITTED BY:
EIJI MOKI STRUCTURAL ENGINEER I	TOSHIKI KAWAKAMI THE CHECKER	SHUJI KAKU TEAM LEADER



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS
AND HIGHWAYS

REPUBLIC OF THE PHILIPPINES

REVIEWED BY:	RECOMMENDING APPROVAL:	APPROVED BY:
PERFECTO L. ZAPLAN, JR. CHIEF, HYDRAULIC DIVISION, BOD	PATRICK B. GATAN PROJECT DIRECTOR PMO - MFCP	GILBERTO S. REYES DIRECTOR BOD
SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY	SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY	SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY
RAUL C. ASIS UNDERSECRETARY FOR TECHNICAL SERVICES	ROGELIO L. SINGSON SECRETARY	

PROJECT & LOCATION

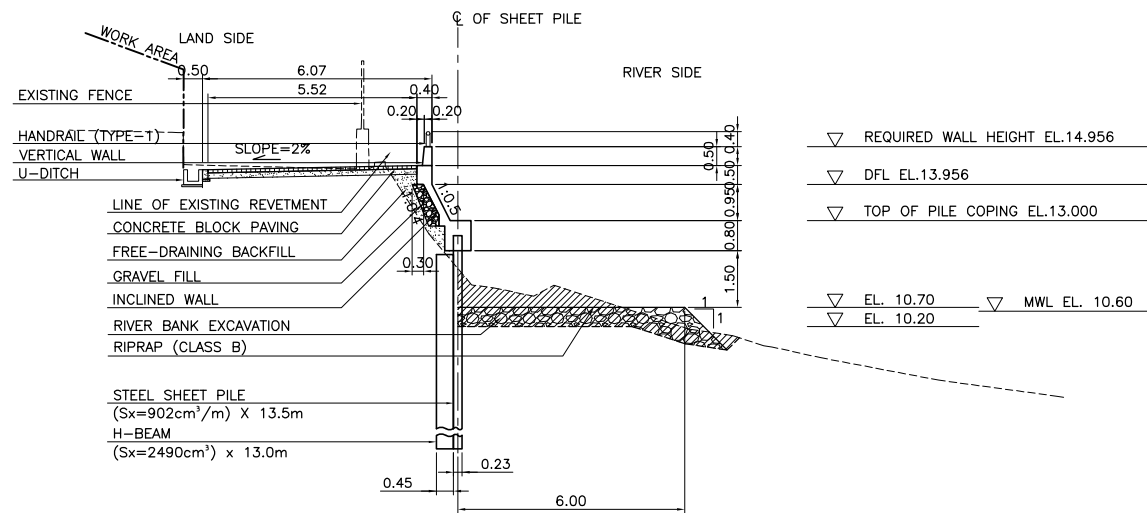
PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA

SHEET CONTENTS

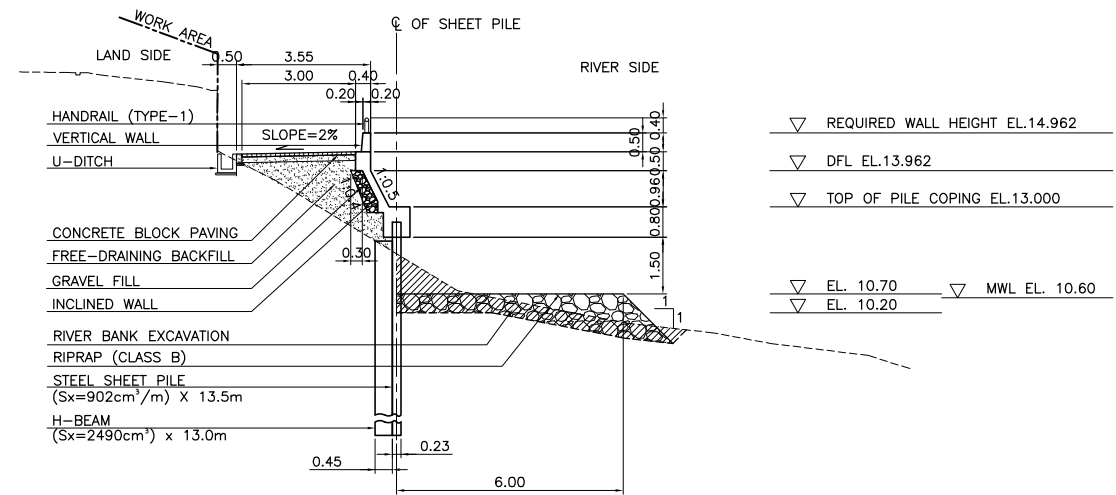
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STA 15+443 - STA 15+548
LEFT BANK

SHEET NO.

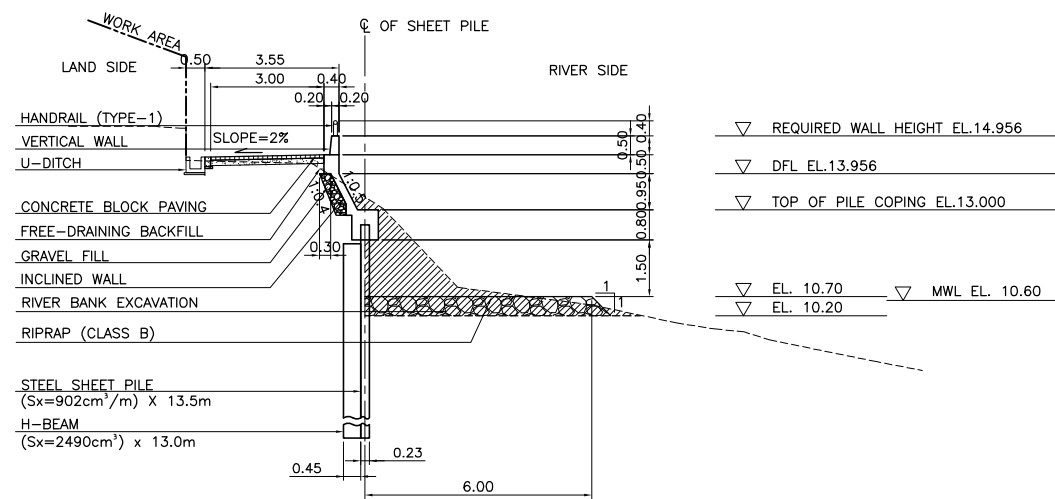
UP-RS
CS 15



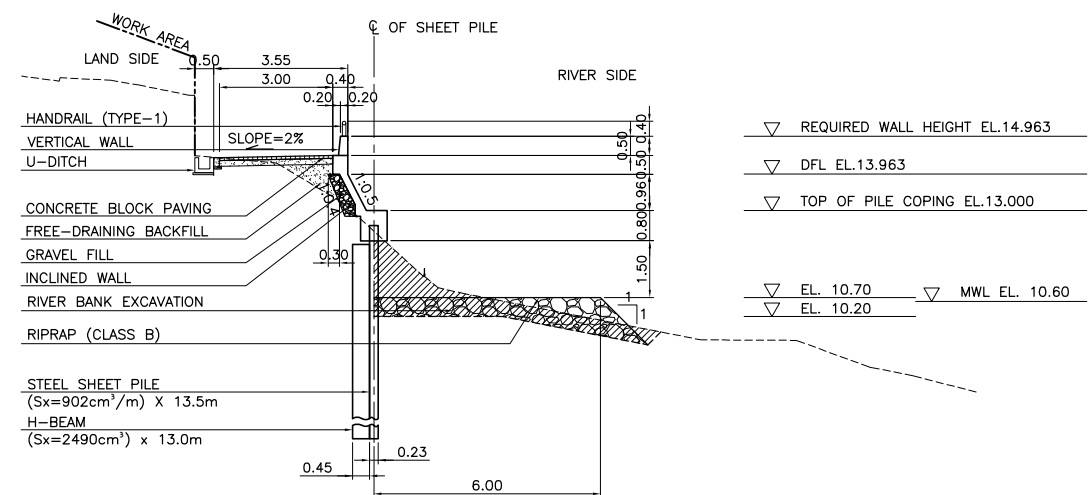
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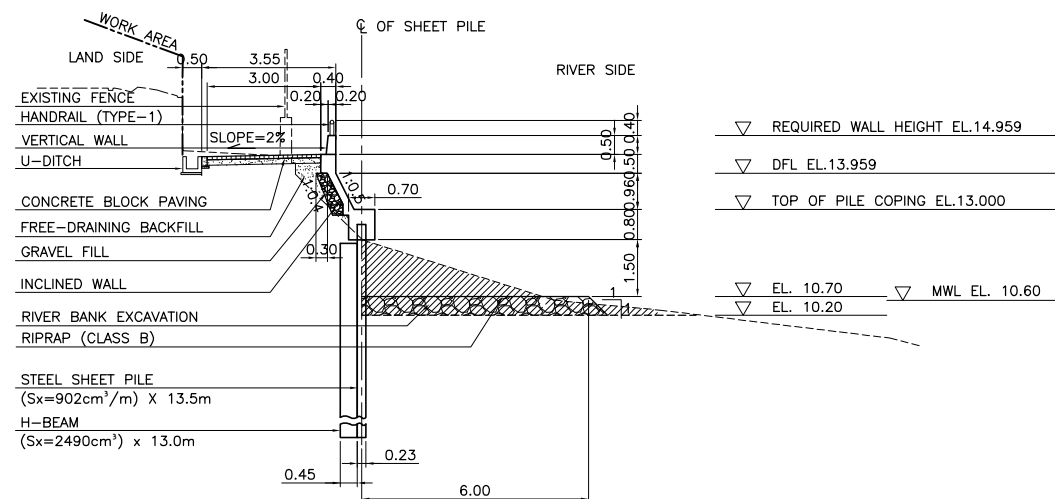
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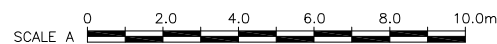
STA. 15+750 (LEFT BANK)



STA. 15+870 (LEFT BANK)



STA. 15+800 (LEFT BANK)



REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN



DESIGNED BY: EIJI MOKI
STRUCTURAL ENGINEER I

CHECKED BY: TOSHIKI KAWAKAMI
THE CHECKER

SUBMITTED BY: SHUJI KAKU
TEAM LEADER



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS
AND HIGHWAYS

REPUBLIC OF THE PHILIPPINES

REVIEWED BY: PERFECTO L. ZAPLAN, JR.
CHIEF, HYDRAULIC DIVISION, BOD

RECOMMENDING APPROVAL: PATRICK B. GATAN
PROJECT DIRECTOR
PMO - MFCP

GILBERTO S. REYES
DIRECTOR
BOD

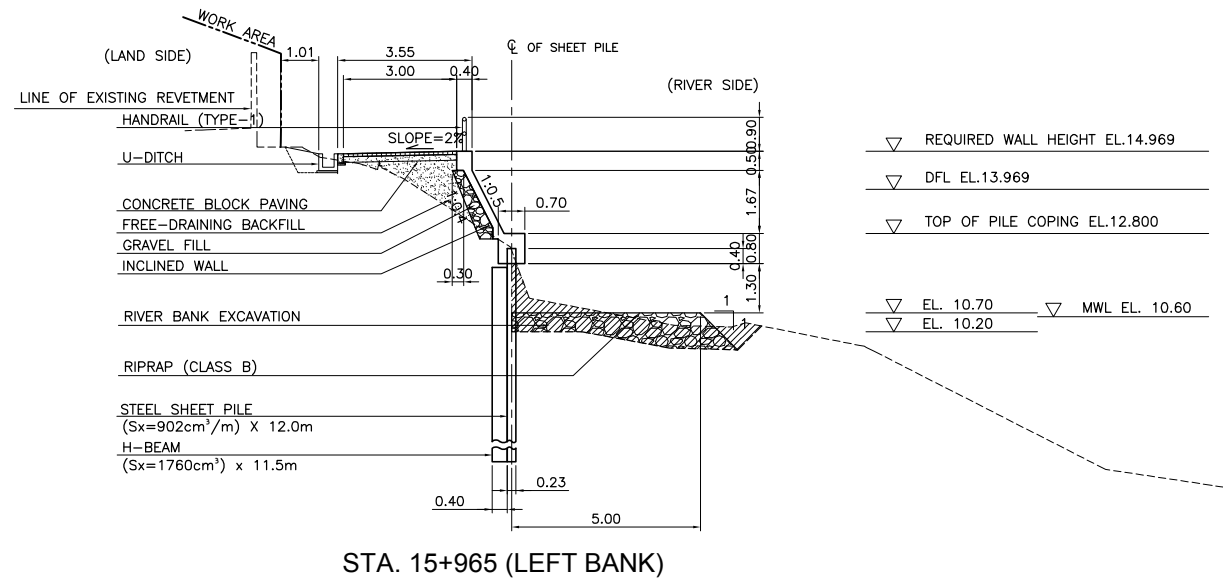
APPROVED BY: RAUL C. ASIS
UNDERSECRETARY
FOR TECHNICAL SERVICES

ROGELIO L. SINGSON
SECRETARY

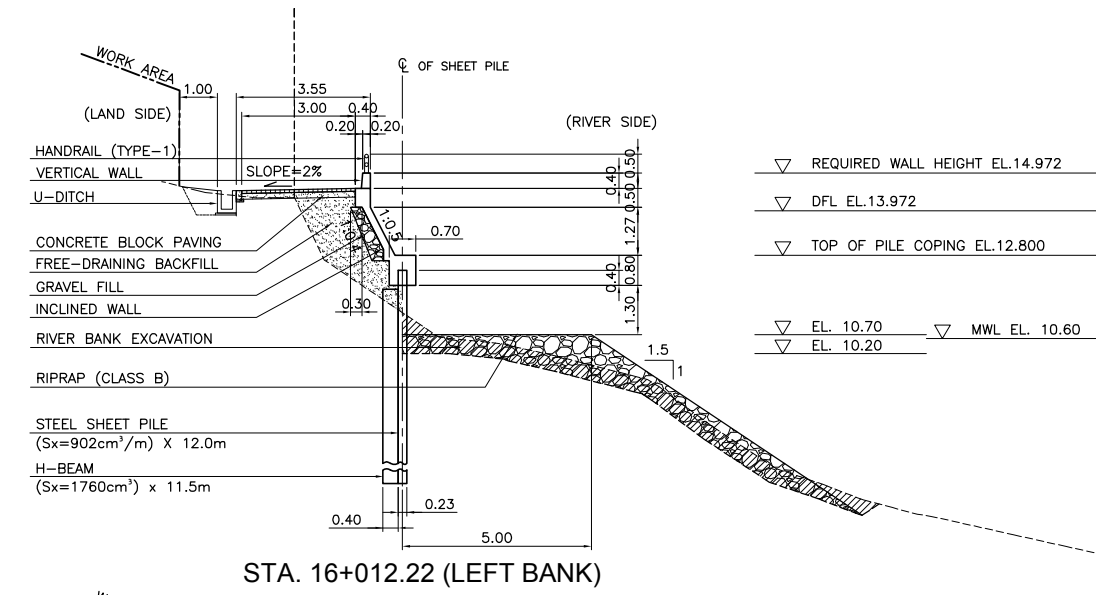
PROJECT & LOCATION
PASIG-MARIKINA
RIVER CHANNEL
IMPROVEMENT
PROJECT (PHASE III),
METRO MANILA

SHEET CONTENTS
CROSS SECTION
STA 15+747 - STA 15+870
LEFT BANK

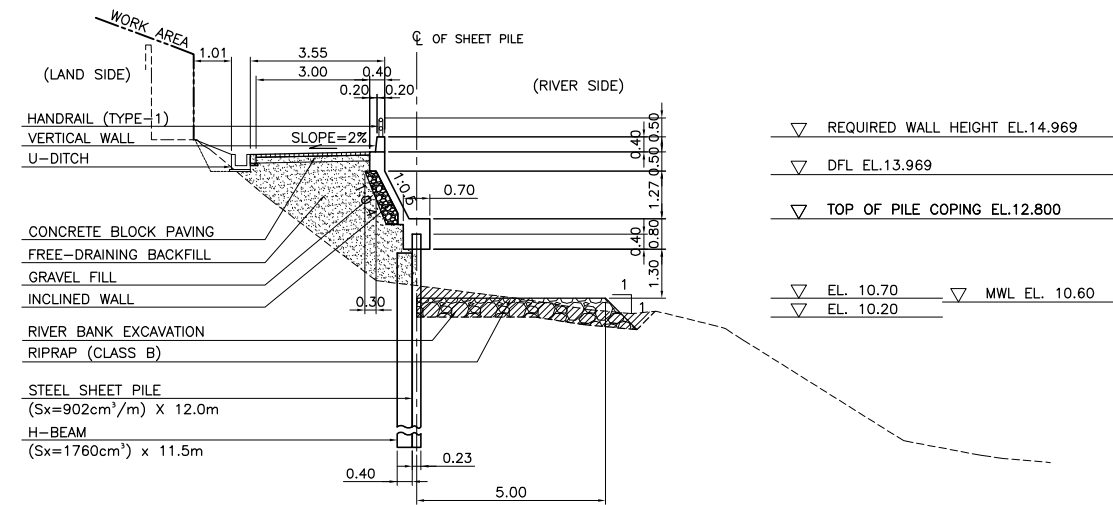
SHEET NO.
UP-RS
CS 16



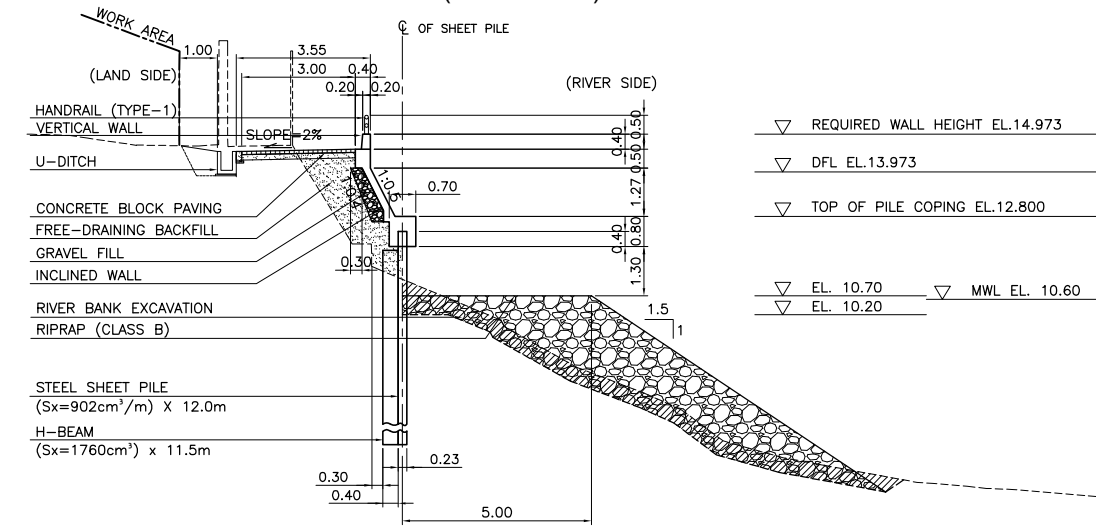
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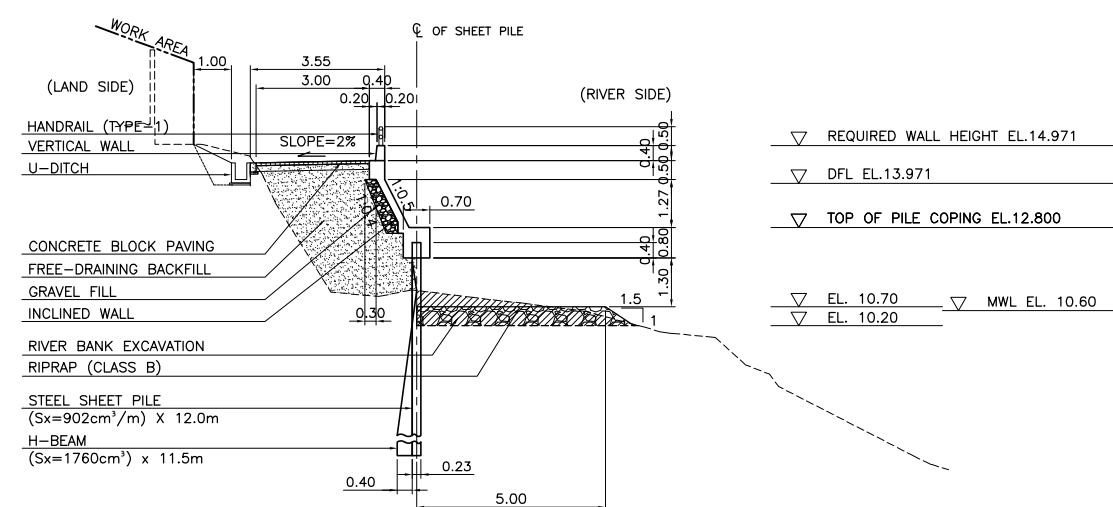
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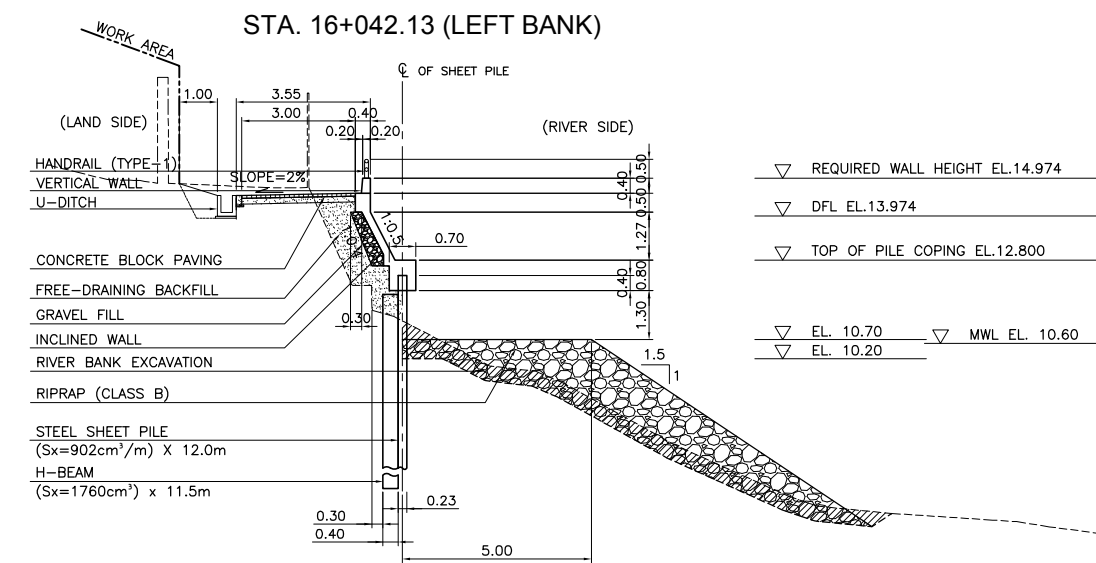
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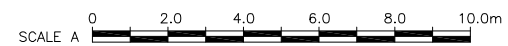
STA. 16+042.13 (LEFT BANK)



STA. 16+000 (LEFT BANK)



STA. 16+050 (LEFT BANK)

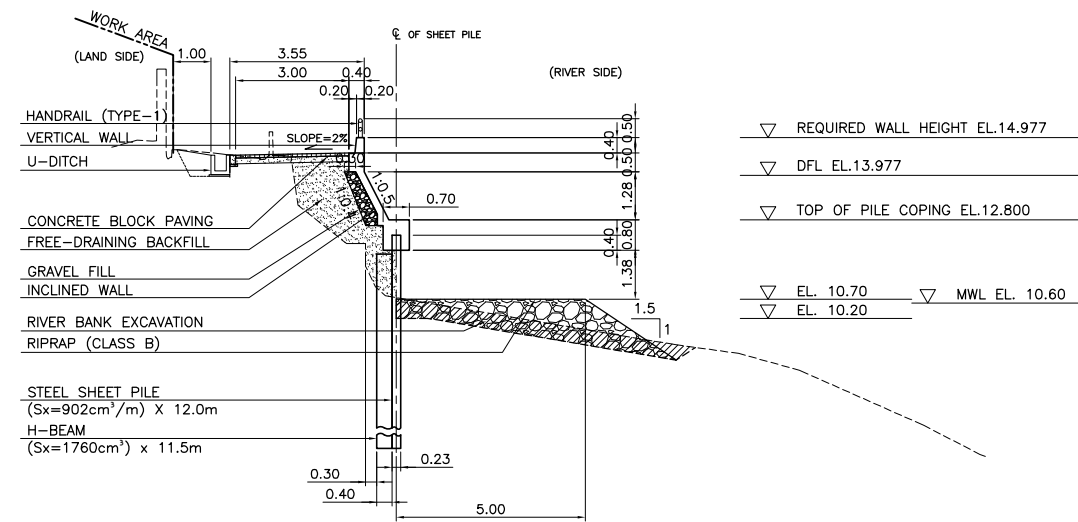


REVISIONS			
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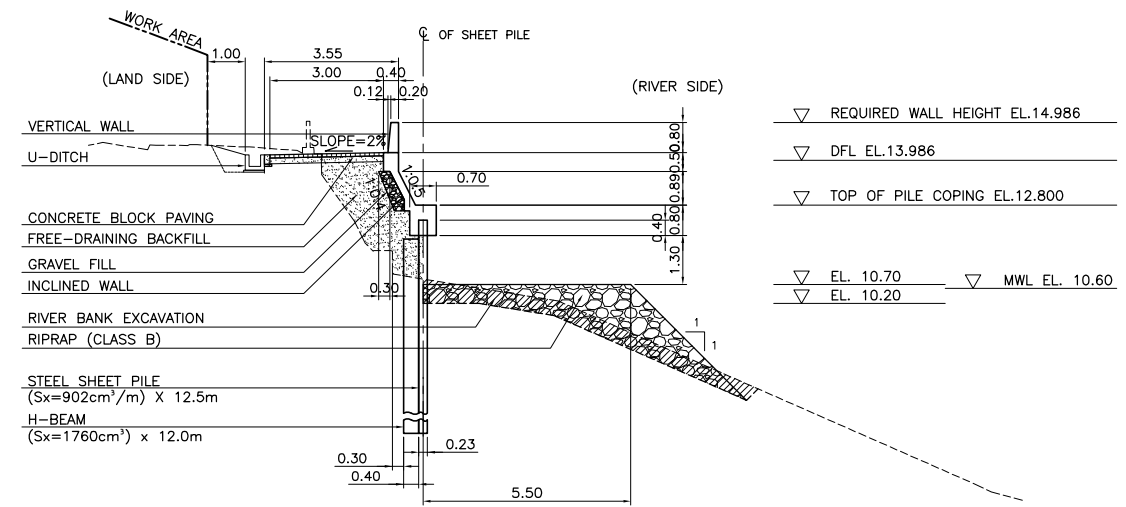
NOTE:
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SHUJI KAKU
TEAM LEADER

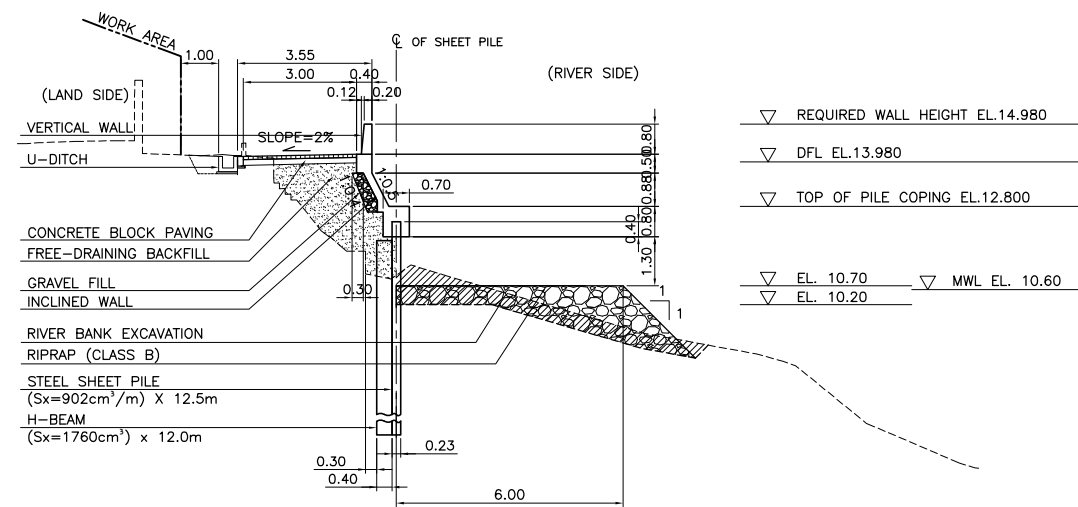
JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN			REPUBLIC OF THE PHILIPPINES				PROJECT & LOCATION		SHEET CONTENTS		SHEET NO.	
	DESIGNED BY:	CHECKED BY:	SUBMITTED BY:		REVIEWED BY:	RECOMMENDING APPROVAL:		APPROVED BY:		PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA	CROSS SECTION STA 15+965 - STA 16+050 LEFT BANK	
	EIJI MOKI STRUCTURAL ENGINEER I	TOSHIKI KAWAKAMI THE CHECKER	SHUJI KAKU TEAM LEADER		PERFECTO L. ZAPLAN, JR. CHIEF, HYDRAULIC DIVISION, BOD	PATRICK B. GATAN PROJECT DIRECTOR PMO - MFCP	GILBERTO S. REYES DIRECTOR BOD	RAUL C. ASIS UNDERSECRETARY FOR TECHNICAL SERVICES	ROGELIO L. SINGSON SECRETARY			



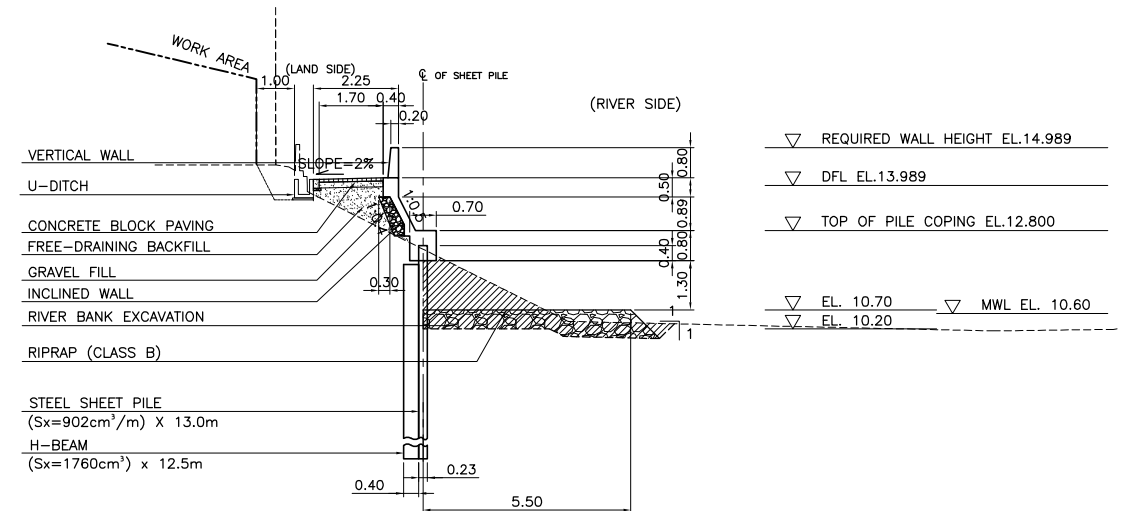
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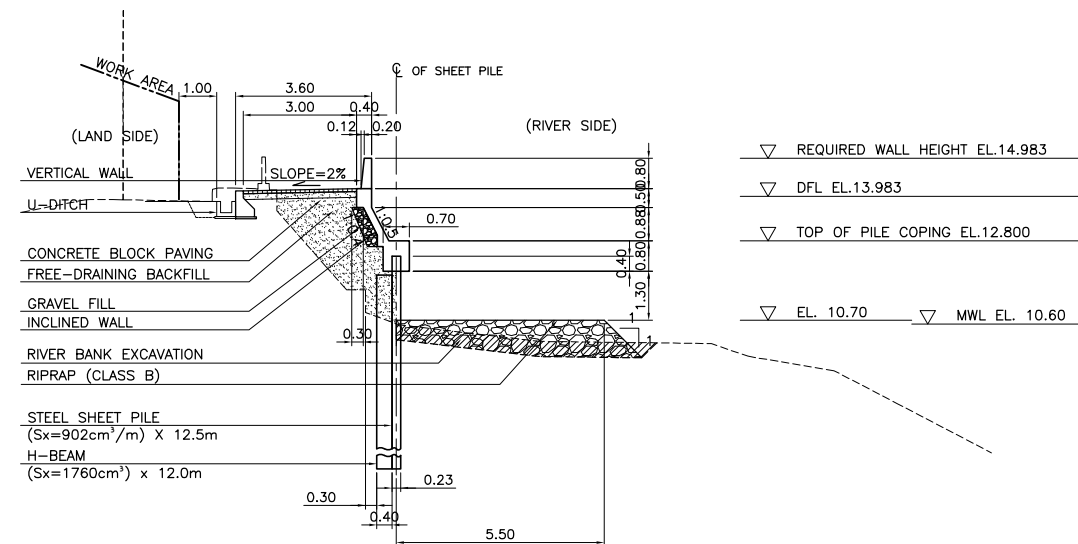
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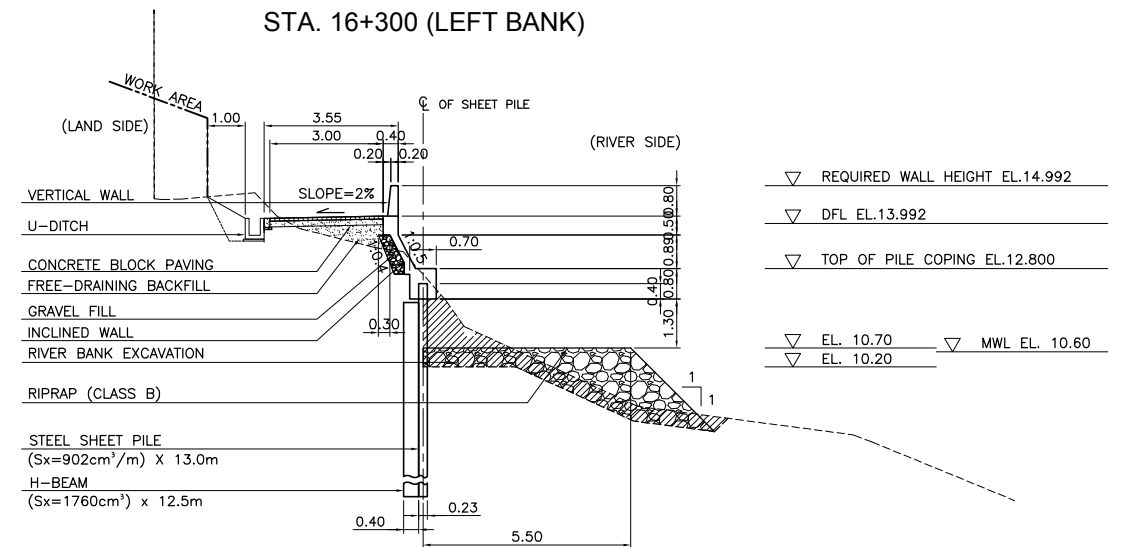
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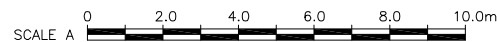
STA. 16+300 (LEFT BANK)



STA. 16+200 (LEFT BANK)



STA. 16+350 (LEFT BANK)



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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN



DESIGNED BY: EIJI MOKI
STRUCTURAL ENGINEER I

CHECKED BY: TOSHIKI KAWAKAMI
THE CHECKER

SUBMITTED BY: SHUJI KAKU
TEAM LEADER



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS
AND HIGHWAYS

REPUBLIC OF THE PHILIPPINES

REVIEWED BY: PERFECTO L. ZAPLAN, JR.
CHIEF, HYDRAULIC DIVISION, BOD

RECOMMENDING APPROVAL: PATRICK B. GATAN
PROJECT DIRECTOR
PMO - MFCP

GILBERTO S. REYES
DIRECTOR
BOD

SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY

APPROVED BY: RAUL C. ASIS
UNDERSECRETARY
FOR TECHNICAL SERVICES

SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY

ROGELIO L. SINGSON
SECRETARY

PROJECT & LOCATION

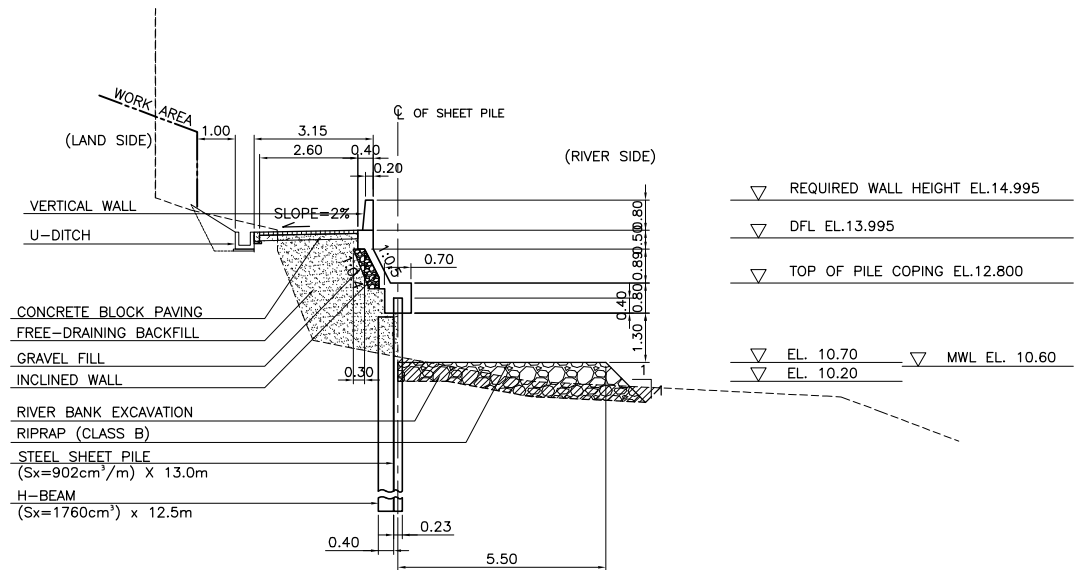
PASIG-MARIKINA
RIVER CHANNEL
IMPROVEMENT
PROJECT (PHASE III),
METRO MANILA

SHEET CONTENTS

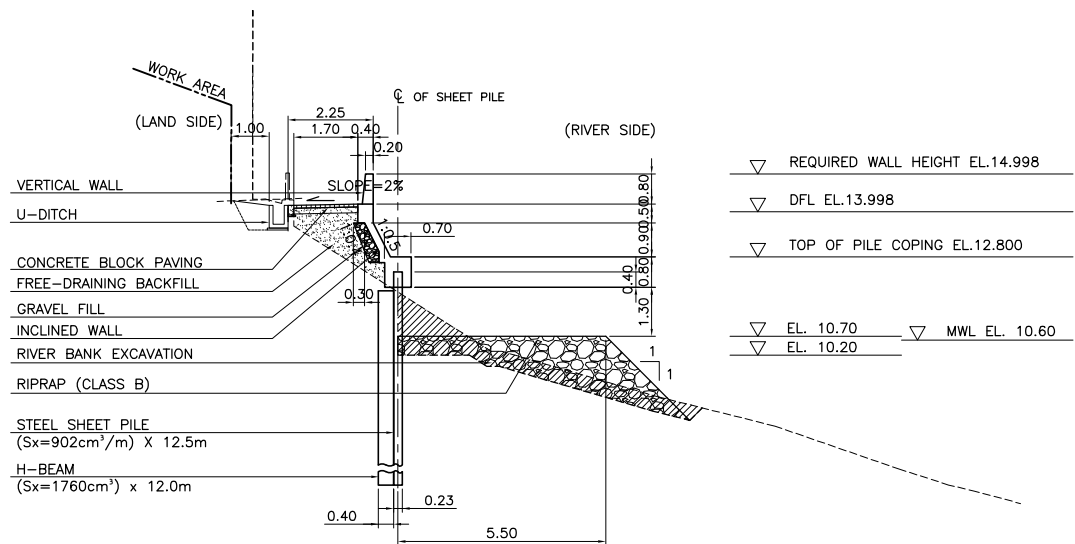
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LEFT BANK

SHEET NO.

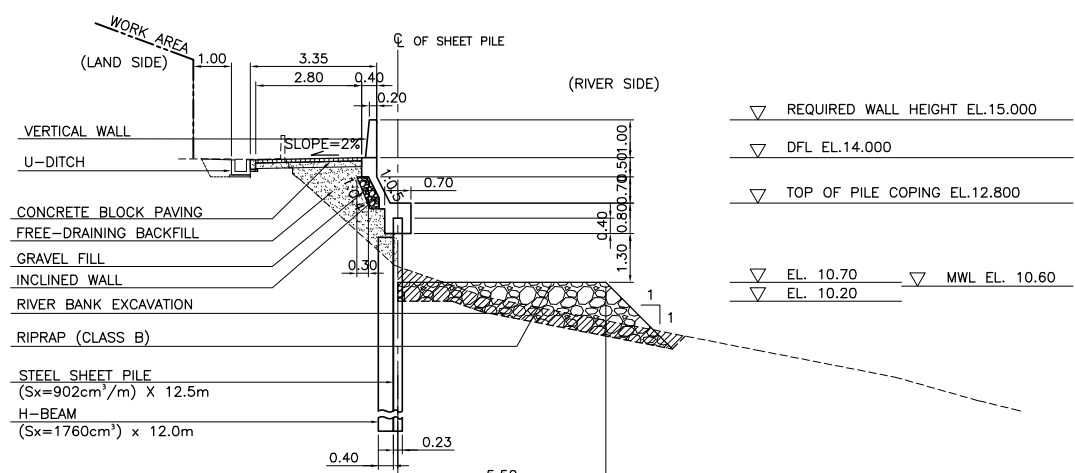
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CS 18



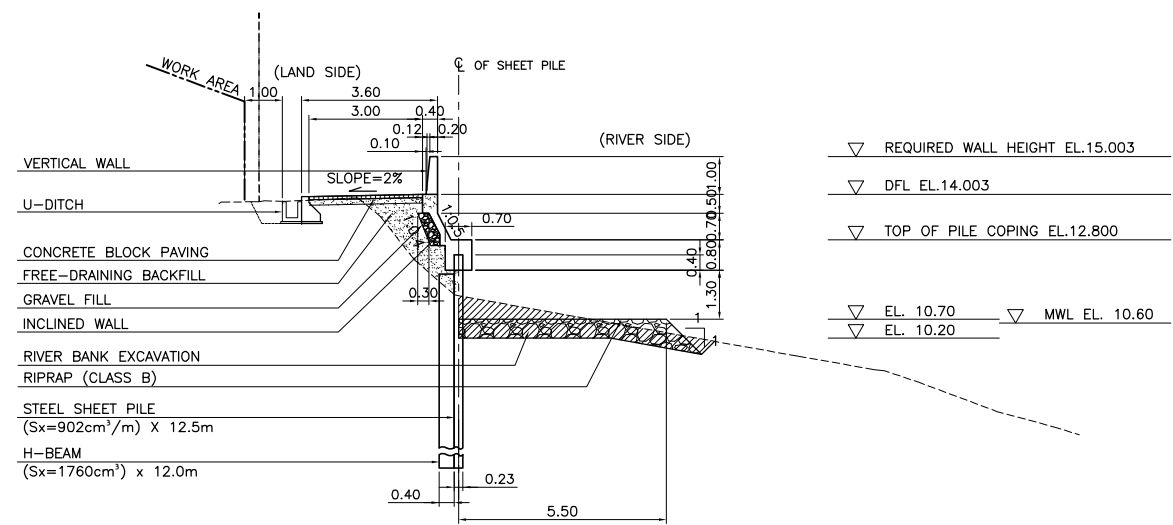
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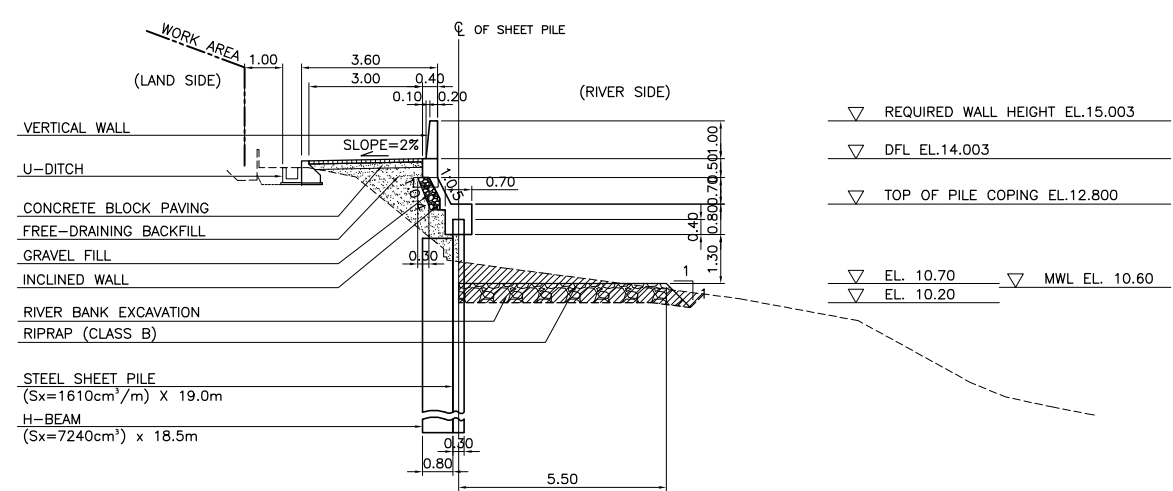
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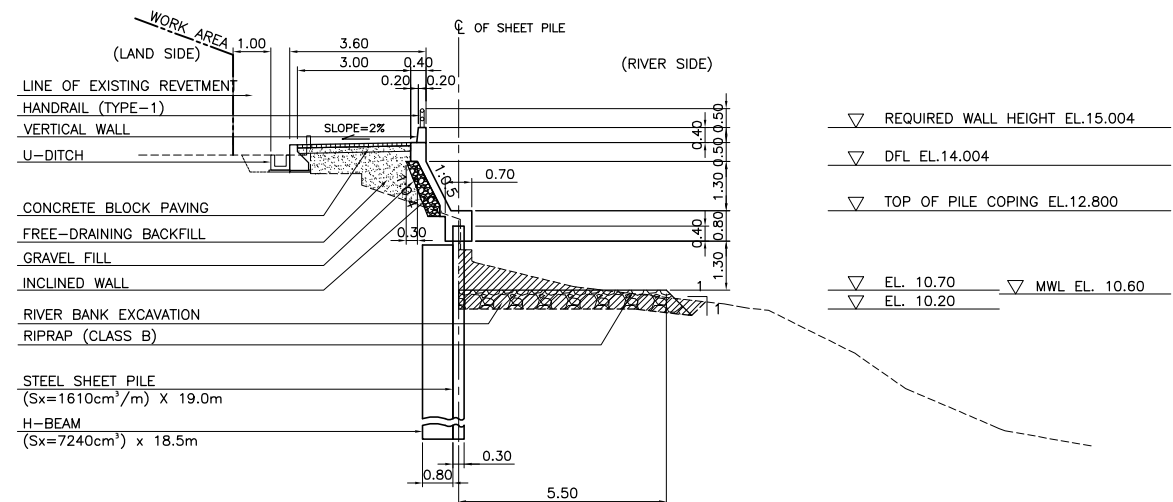
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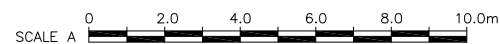
STA. 16+550 (LEFT BANK)



STA. 16+52 (LEFT BANK)



STA. 16+564 (LEFT BANK)



REVISIONS			
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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN



DESIGNED BY: EIJI MOKI
STRUCTURAL ENGINEER I

CHECKED BY: TOSHIKI KAWAKAMI
THE CHECKER

SUBMITTED BY: SHUJI KAKU
TEAM LEADER



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS
AND HIGHWAYS

REPUBLIC OF THE PHILIPPINES

REVIEWED BY: PERFECTO L. ZAPLAN, JR.
CHIEF, HYDRAULIC DIVISION, BOD

RECOMMENDING APPROVAL: PATRICK B. GATAN
PROJECT DIRECTOR
PMO - MFCP

GILBERTO S. REYES
DIRECTOR
BOD

APPROVED BY: RAUL C. ASIS
UNDERSECRETARY
FOR TECHNICAL SERVICES

ROGELIO L. SINGSON
SECRETARY

PROJECT & LOCATION

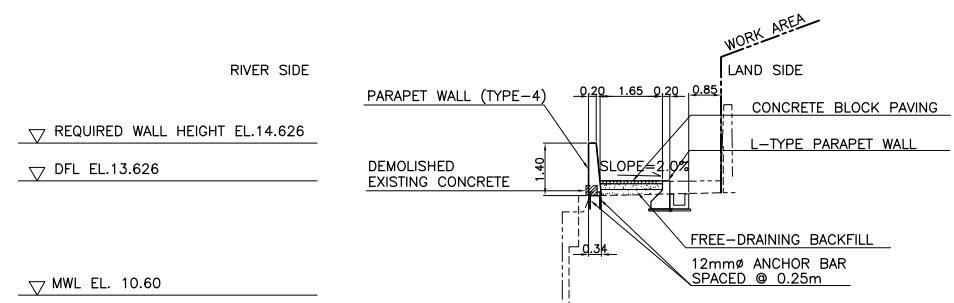
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RIVER CHANNEL
IMPROVEMENT
PROJECT (PHASE III),
METRO MANILA

SHEET CONTENTS

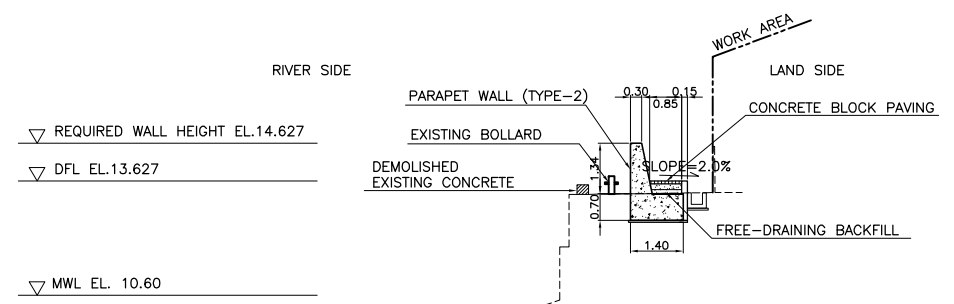
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LEFT BANK

SHEET NO.

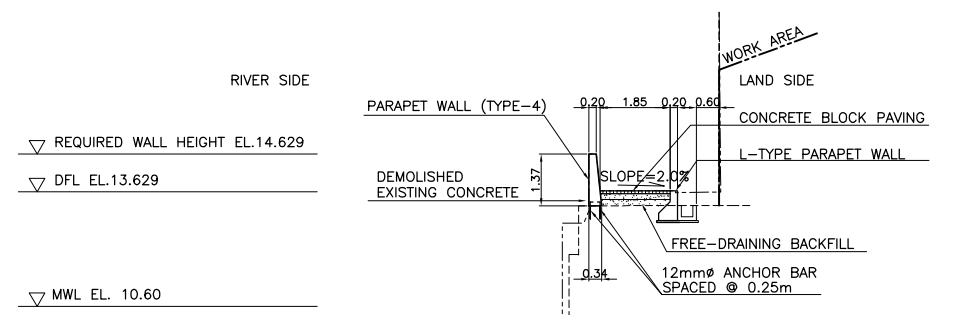
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CS 19



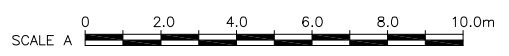
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STA. 10+150 (RIGHT BANK)



STA. 10+179 (RIGHT BANK)

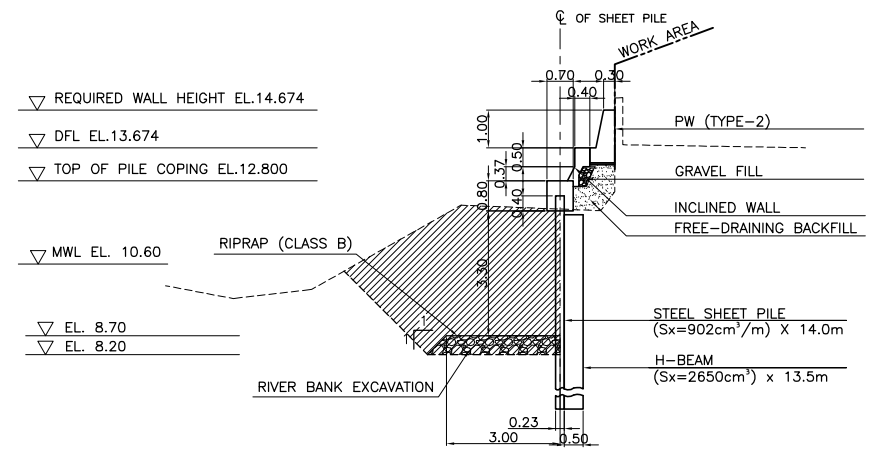


REVISIONS			
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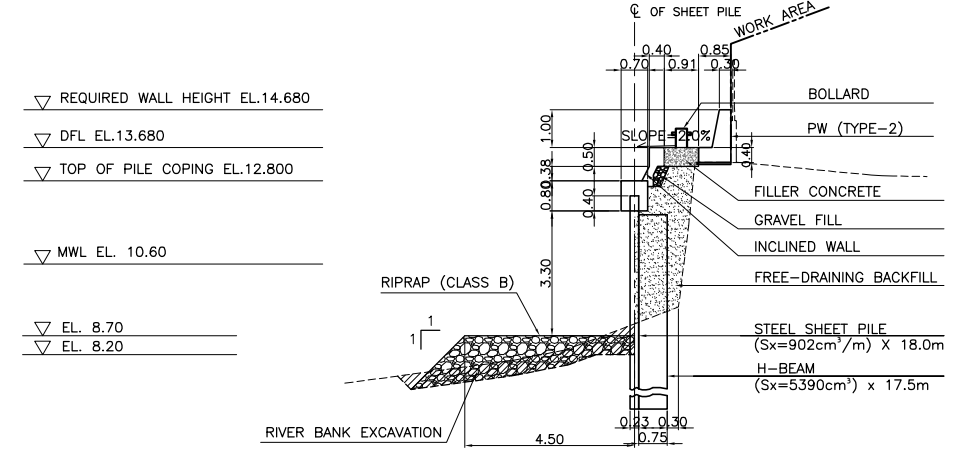
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SHUJI KAKU
TEAM LEADER

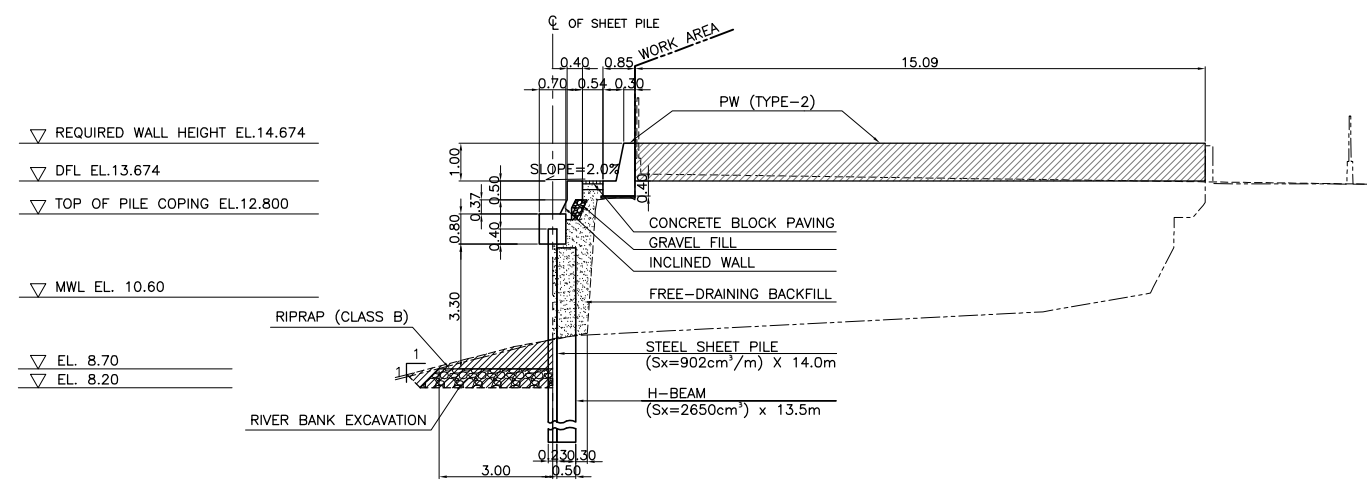
JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN			REPUBLIC OF THE PHILIPPINES				PROJECT & LOCATION	SHEET CONTENTS	SHEET NO.		
	DESIGNED BY:	CHECKED BY:	SUBMITTED BY:		REVIEWED BY:	RECOMMENDING APPROVAL :		APPROVED BY:	PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA	CROSS SECTION STA 10+140 ~ STA 10+179 RIGHT BANK	
	EJI MOKI STRUCTURAL ENGINEER I	TOSHIKI KAWAKAMI THE CHECKER	SHUJI KAKU TEAM LEADER		PERFECTO L. ZAPLAN, JR. CHIEF, HYDRAULIC DIVISION, BOD	PATRICK B. GATAN PROJECT DIRECTOR PMO - MFCP	GILBERTO S. REYES DIRECTOR BOD	RAUL C. ASIS UNDERSECRETARY FOR TECHNICAL SERVICES			



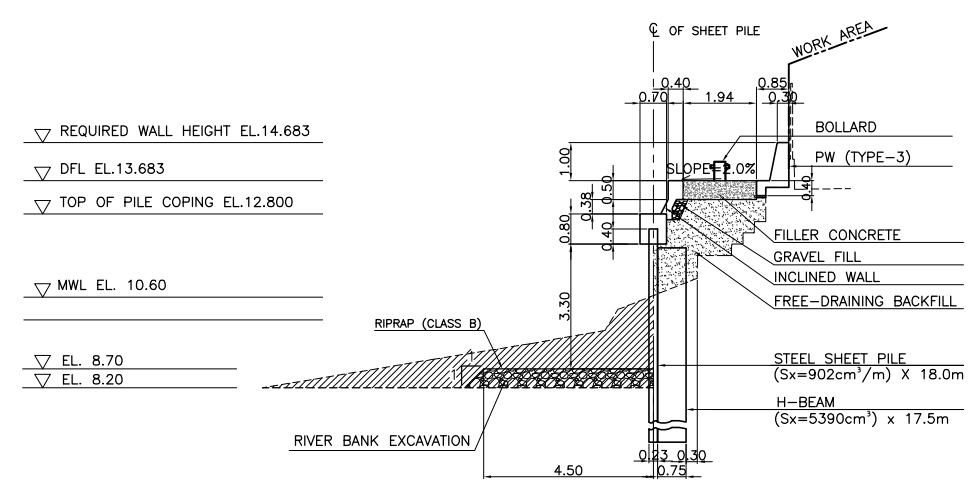
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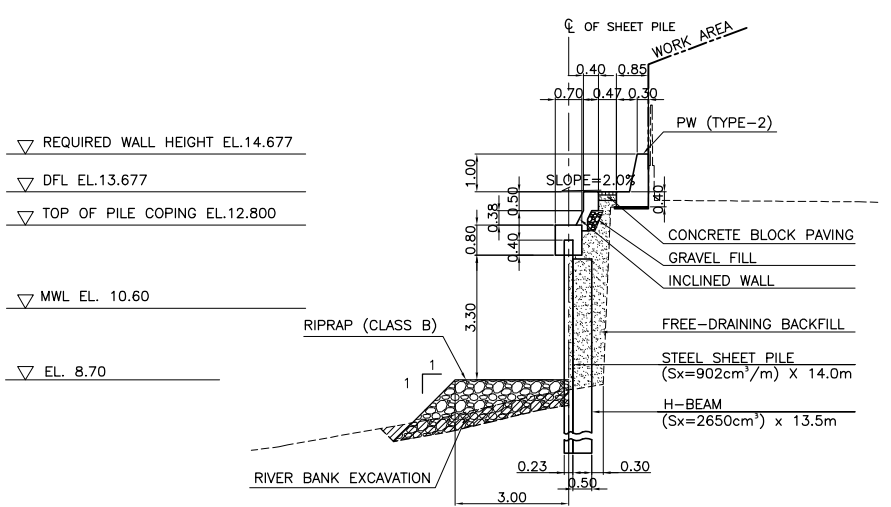
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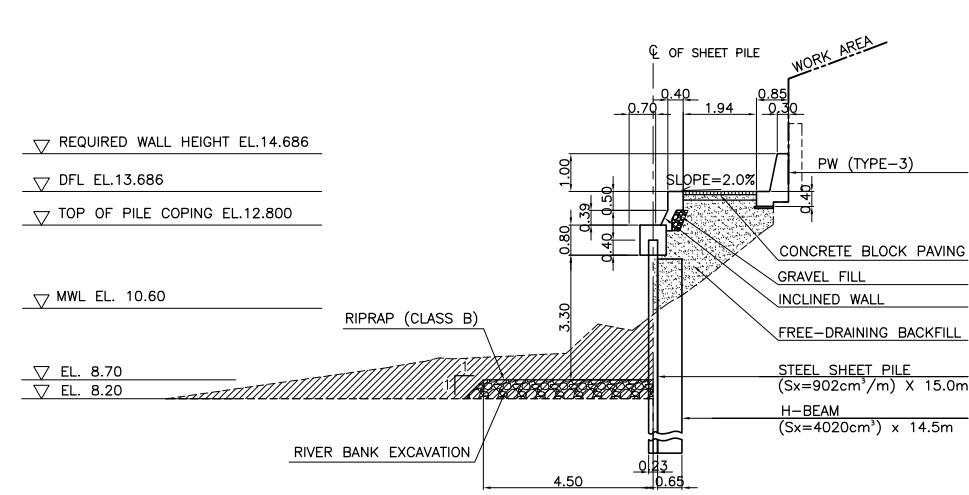
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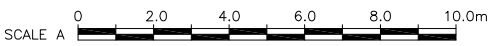
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STA. 11+000 (RIGHT BANK)



STA. 11+150 (RIGHT BANK)

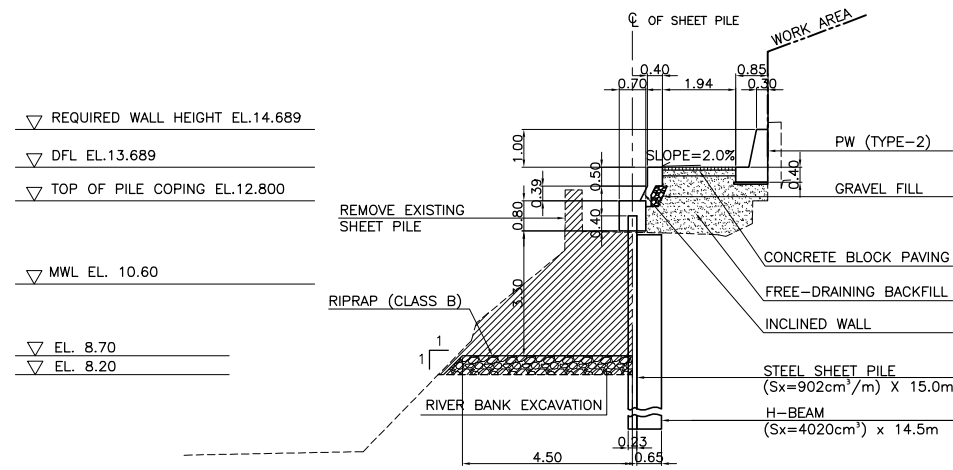


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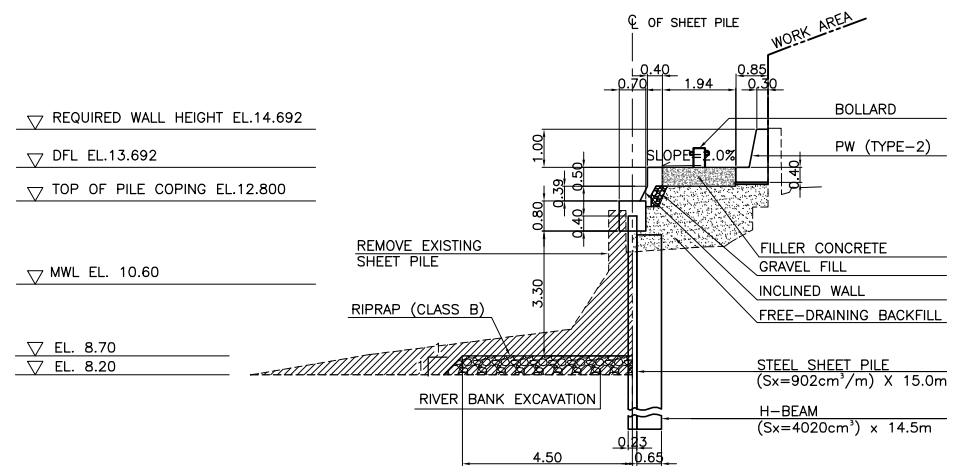
NOTE:
PURSUANT TO SECTION 4 OF ANNEX 'A' OF THE REVISED IMPLEMENTING RULES AND REGULATIONS OF R.A. 9184, APPROVAL BY THE AUTHORIZED DPWH OFFICIALS OF DETAILED ENGINEERING SURVEYS AND DESIGN UNDERTAKEN BY CONSULTANTS NEITHER DIMINISHES THE RESPONSIBILITY OF THE LATTER FOR THE TECHNICAL INTEGRITY OF THE SURVEYS AND DESIGN NOR TRANSFER ANY PART OF THAT RESPONSIBILITY TO THE APPROVING OFFICIALS.

SHUJI KAKU
TEAM LEADER

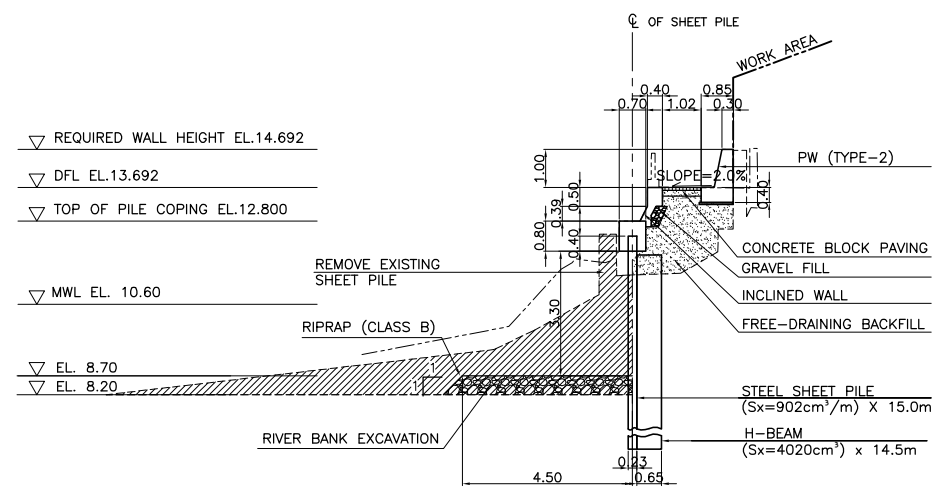
JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN			REPUBLIC OF THE PHILIPPINES				PROJECT & LOCATION		SHEET CONTENTS		SHEET NO.
	DESIGNED BY:	CHECKED BY:	SUBMITTED BY:	REVIEWED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA		CROSS SECTION STA 10+956-A ~ STA 11+150 RIGHT BANK		
	EIJI MOKI STRUCTURAL ENGINEER I	TOSHIKI KAWAKAMI THE CHECKER	SHUJI KAKU TEAM LEADER	PERFECTO L. ZAPLAN, JR. CHIEF, HYDRAULIC DIVISION, BOD	PATRICK B. GATAN PROJECT DIRECTOR PMO - MFCP	GILBERTO S. REYES DIRECTOR BOD					



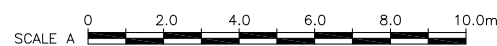
STA. 11+200 (RIGHT BANK)



STA. 11+250 (RIGHT BANK)



STA. 11+263 (RIGHT BANK)



REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

NOTE:
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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN



DESIGNED BY: EIJI MOKI
STRUCTURAL ENGINEER I

CHECKED BY: TOSHIKI KAWAKAMI
THE CHECKER

SUBMITTED BY: SHUJI KAKU
TEAM LEADER



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS
AND HIGHWAYS

REPUBLIC OF THE PHILIPPINES

REVIEWED BY: PERFECTO L. ZAPLAN, JR.
CHIEF, HYDRAULIC DIVISION, BOD

RECOMMENDING APPROVAL: PATRICK B. GATAN
PROJECT DIRECTOR
PMO - MFCP

GILBERTO S. REYES
DIRECTOR
BOD

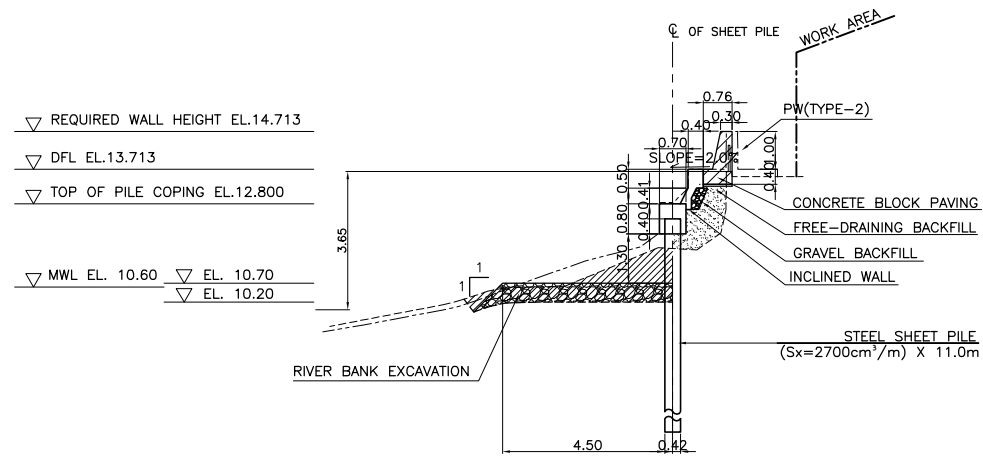
APPROVED BY: RAUL C. ASIS
UNDERSECRETARY
FOR TECHNICAL SERVICES

ROGELIO L. SINGSON
SECRETARY

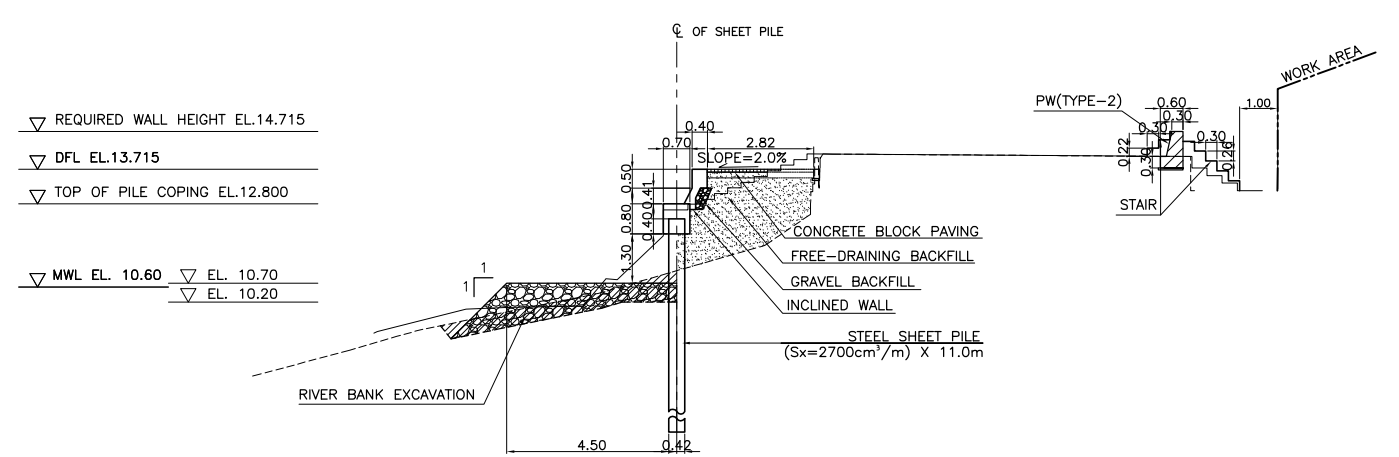
PROJECT & LOCATION: PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA

SHEET CONTENTS: CROSS SECTION STA 11+200 - STA 11+263
RIGHT BANK

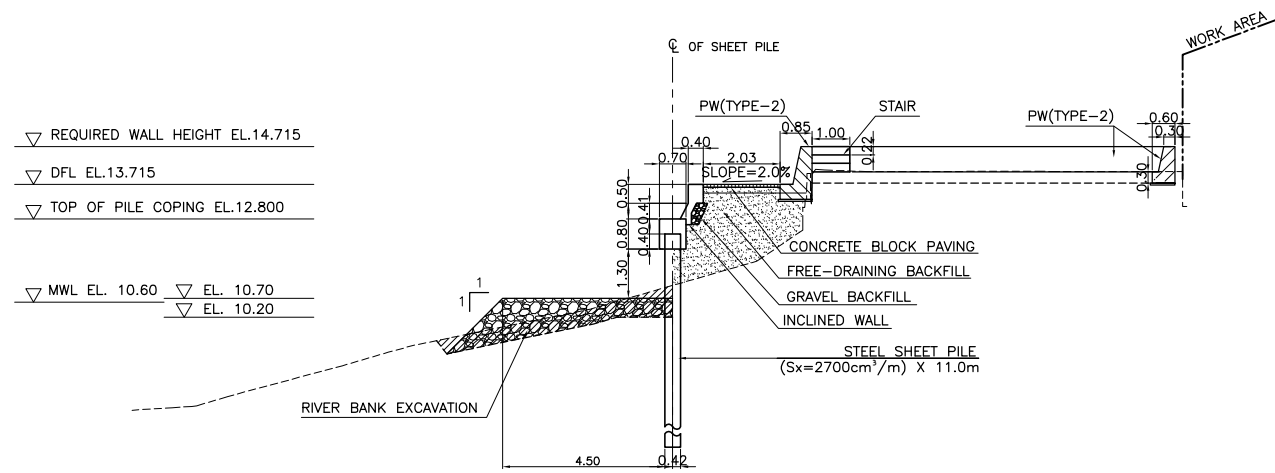
SHEET NO.: UP-RS
CS 22



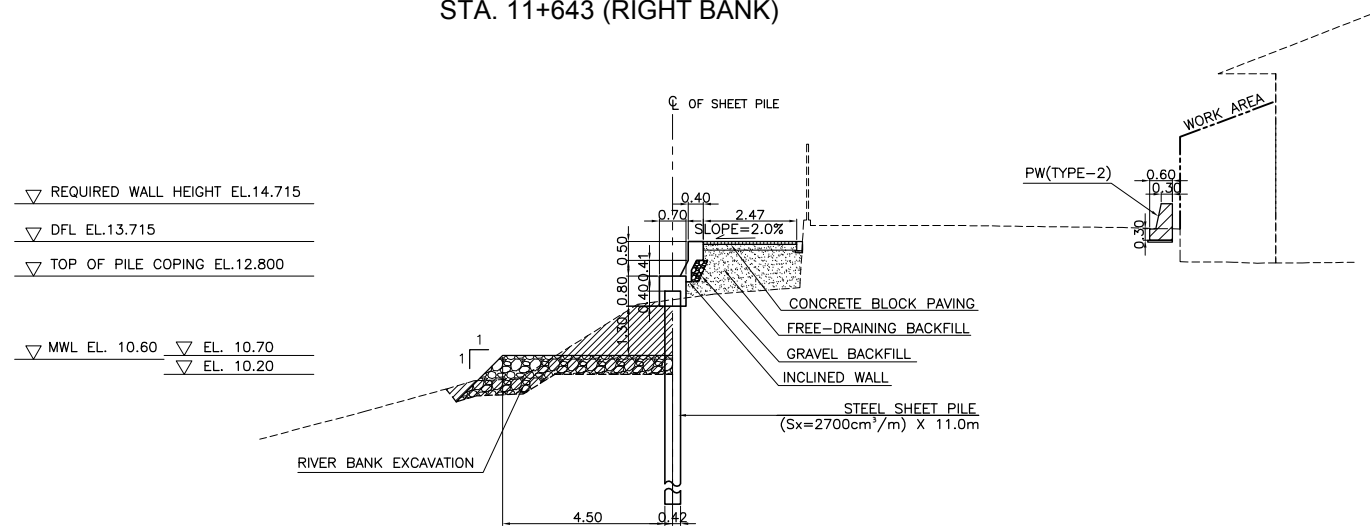
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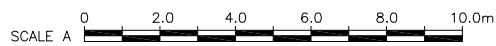
STA. 11+653 (RIGHT BANK)



STA. 11+643 (RIGHT BANK)



STA. 11+650 (RIGHT BANK)



REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

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PURSUANT TO SECTION 4 OF ANNEX 'A' OF THE REVISED IMPLEMENTING RULES AND REGULATIONS OF R.A. 9184, APPROVAL BY THE AUTHORIZED DPWH OFFICIALS OF DETAILED ENGINEERING SURVEYS AND DESIGN UNDERTAKEN BY CONSULTANTS NEITHER DIMINISHES THE RESPONSIBILITY OF THE LATTER FOR THE TECHNICAL INTEGRITY OF THE SURVEYS AND DESIGN NOR TRANSFER ANY PART OF THAT RESPONSIBILITY TO THE APPROVING OFFICIALS.

SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN

REPUBLIC OF THE PHILIPPINES



DESIGNED BY: EIJI MOKI
STRUCTURAL ENGINEER I

CHECKED BY: TOSHIKI KAWAKAMI
THE CHECKER

SUBMITTED BY: SHUJI KAKU
TEAM LEADER



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS
AND HIGHWAYS

REVIEWED BY: PERFECTO L. ZAPLAN, JR.
CHIEF, HYDRAULIC DIVISION, BOD

RECOMMENDING APPROVAL: PATRICK B. GATAN
PROJECT DIRECTOR
PMO - MFCP

GILBERTO S. REYES
DIRECTOR
BOD

APPROVED BY: RAUL C. ASIS
UNDERSECRETARY
FOR TECHNICAL SERVICES

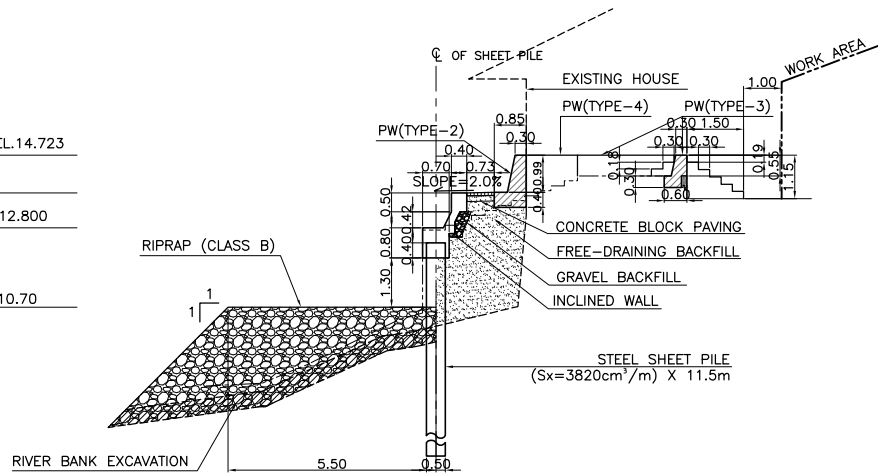
ROGELIO L. SINGSON
SECRETARY

PROJECT & LOCATION: PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA

SHEET CONTENTS: CROSS SECTION STA 11+610 - STA 11+653
RIGHT BANK

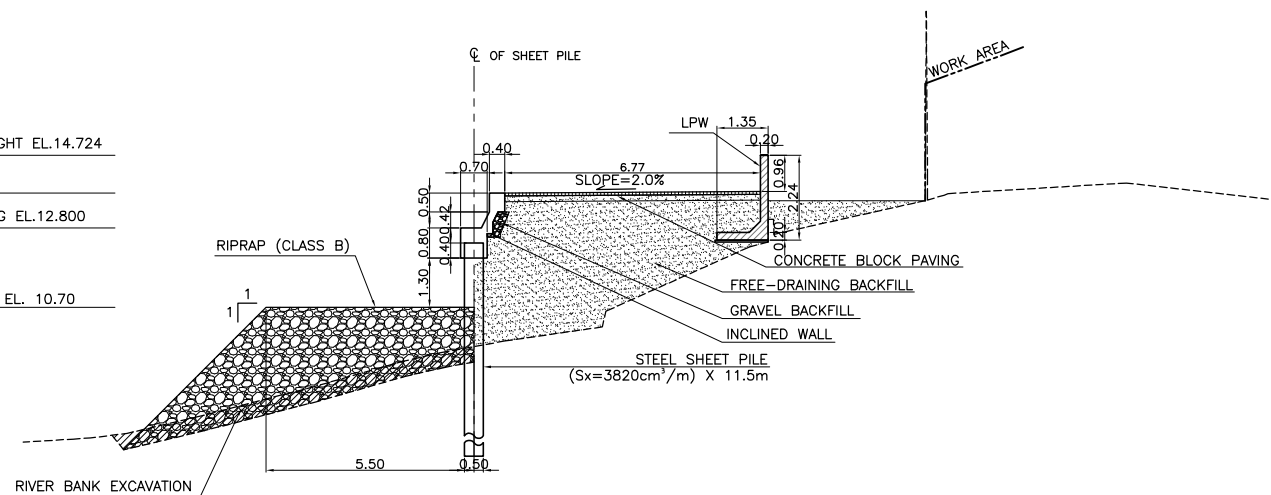
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 ▽ DFL EL.13.723
 ▽ TOP OF PILE COPING EL.12.800
 ▽ MWL EL. 10.60 ▽ EL. 10.70



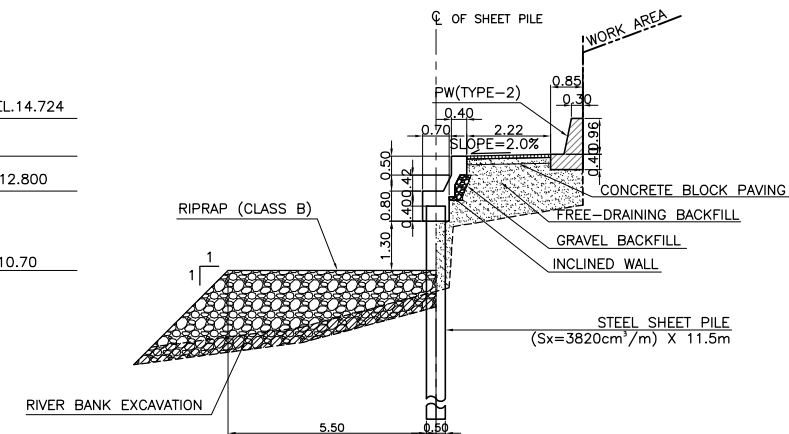
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 ▽ MWL EL. 10.60 ▽ EL. 10.70

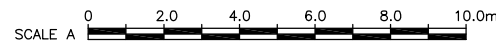


STA. 11+800 (RIGHT BANK)

▽ REQUIRED WALL HEIGHT EL.14.724
 ▽ DFL EL.13.724
 ▽ TOP OF PILE COPING EL.12.800
 ▽ MWL EL. 10.60 ▽ EL. 10.70



STA. 11+803-A (RIGHT BANK)



REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

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 PURSUANT TO SECTION 4 OF ANNEX 'A' OF THE REVISED IMPLEMENTING RULES AND REGULATIONS OF R.A. 9184, APPROVAL BY THE AUTHORIZED DPWH OFFICIALS OF DETAILED ENGINEERING SURVEYS AND DESIGN UNDERTAKEN BY CONSULTANTS NEITHER DIMINISHES THE RESPONSIBILITY OF THE LATTER FOR THE TECHNICAL INTEGRITY OF THE SURVEYS AND DESIGN NOR TRANSFER ANY PART OF THAT RESPONSIBILITY TO THE APPROVING OFFICIALS.

SHUJI KAKU
 TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN



DESIGNED BY: EIJI MOKI
 STRUCTURAL ENGINEER I
 CHECKED BY: TOSHIKI KAWAKAMI
 THE CHECKER
 SUBMITTED BY: SHUJI KAKU
 TEAM LEADER



REPUBLIC OF THE PHILIPPINES
 DEPARTMENT OF PUBLIC WORKS
 AND HIGHWAYS

REPUBLIC OF THE PHILIPPINES

REVIEWED BY: PERFECTO L. ZAPLAN, JR.
 CHIEF, HYDRAULIC DIVISION, BOD
 RECOMMENDING APPROVAL: PATRICK B. GATAN
 PROJECT DIRECTOR
 PMO - MFCP
 GILBERTO S. REYES
 DIRECTOR
 BOD
 APPROVED BY: RAUL C. ASIS
 UNDERSECRETARY
 FOR TECHNICAL SERVICES
 ROGELIO L. SINGSON
 SECRETARY

PROJECT & LOCATION

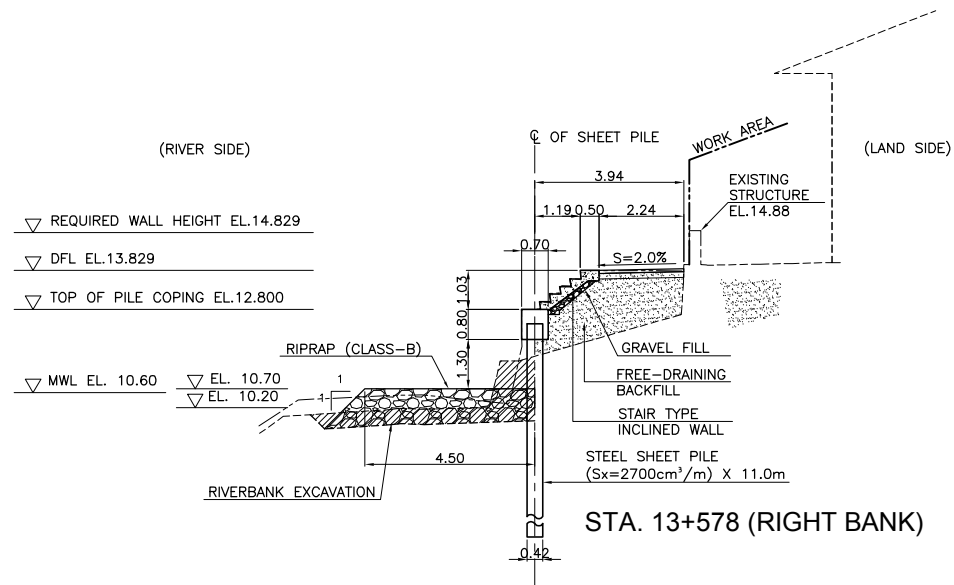
PASIG-MARIKINA
 RIVER CHANNEL
 IMPROVEMENT
 PROJECT (PHASE III),
 METRO MANILA

SHEET CONTENTS

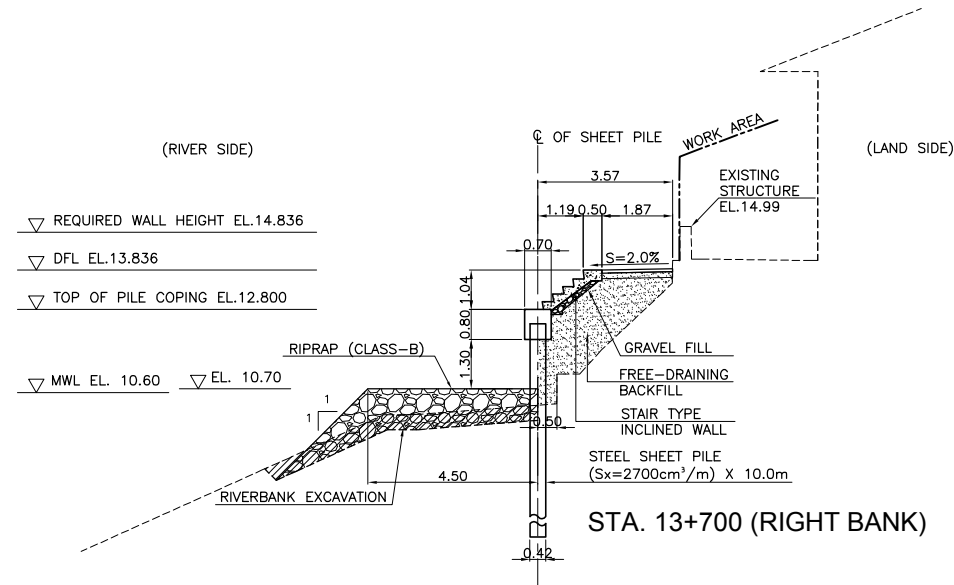
CROSS SECTION
 STA 11+788 - STA 11+803-A
 RIGHT BANK

SHEET NO.

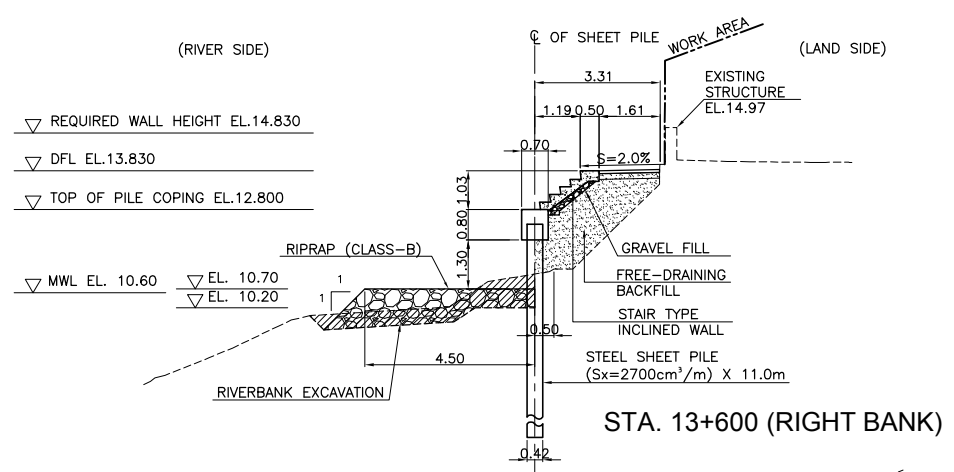
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 CS 24



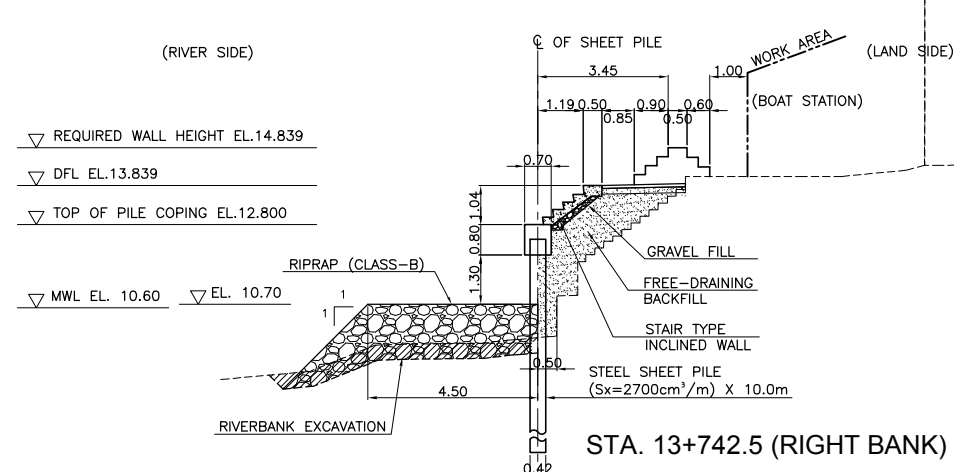
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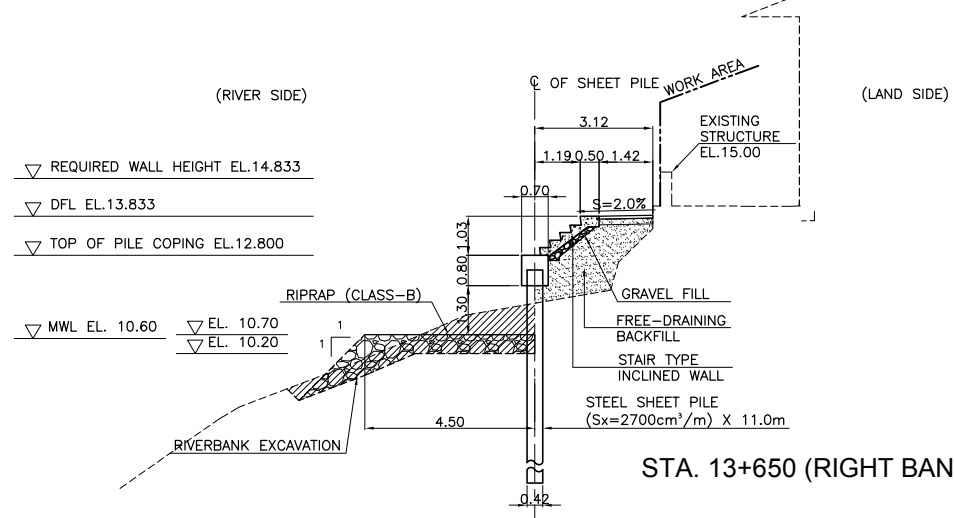
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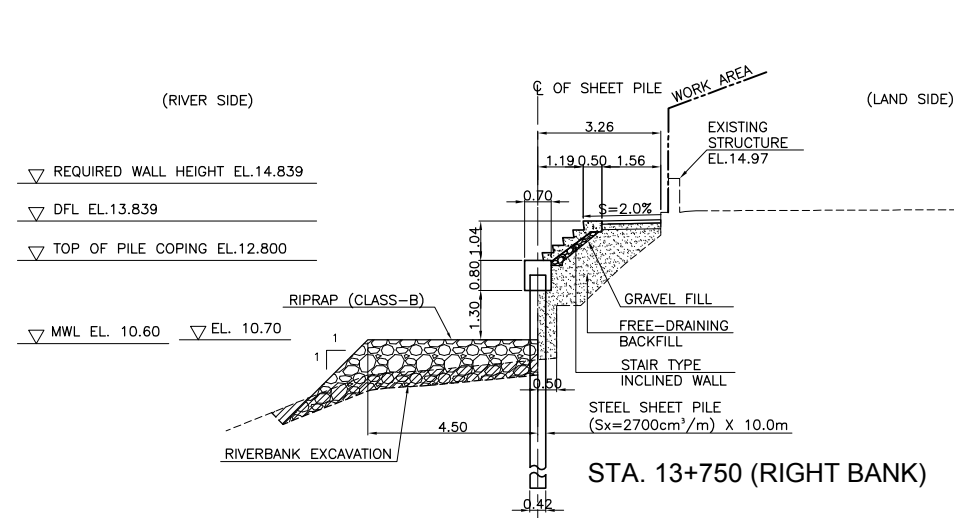
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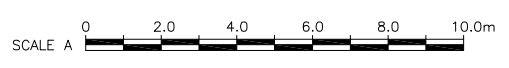
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STA. 13+650 (RIGHT BANK)



STA. 13+750 (RIGHT BANK)

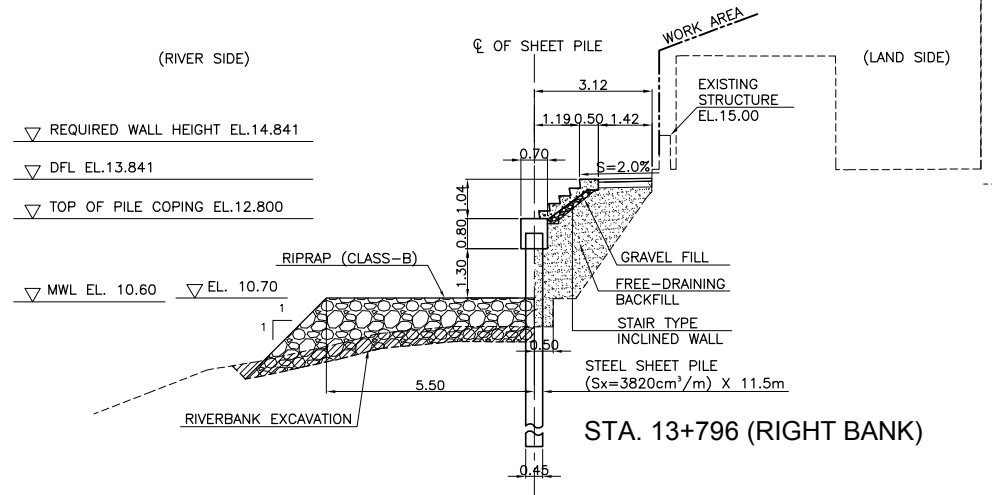


REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

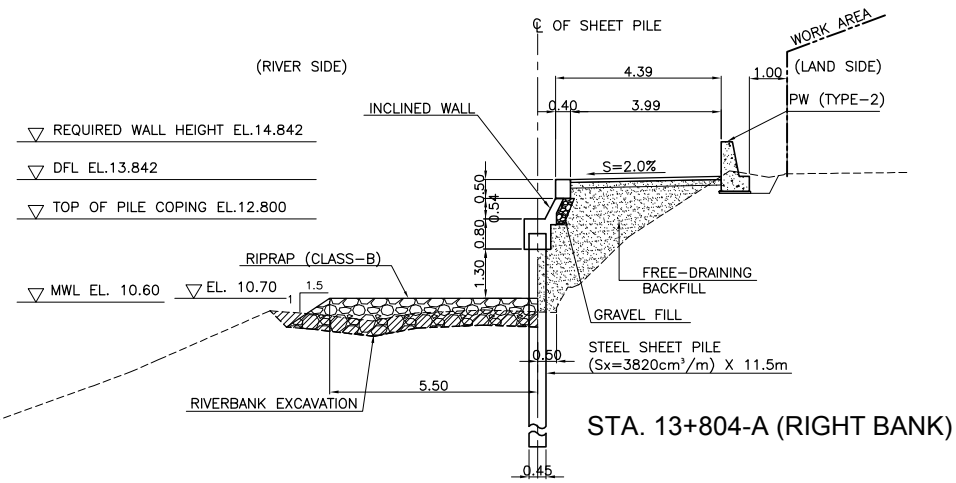
NOTE:
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SHUJI KAKU
TEAM LEADER

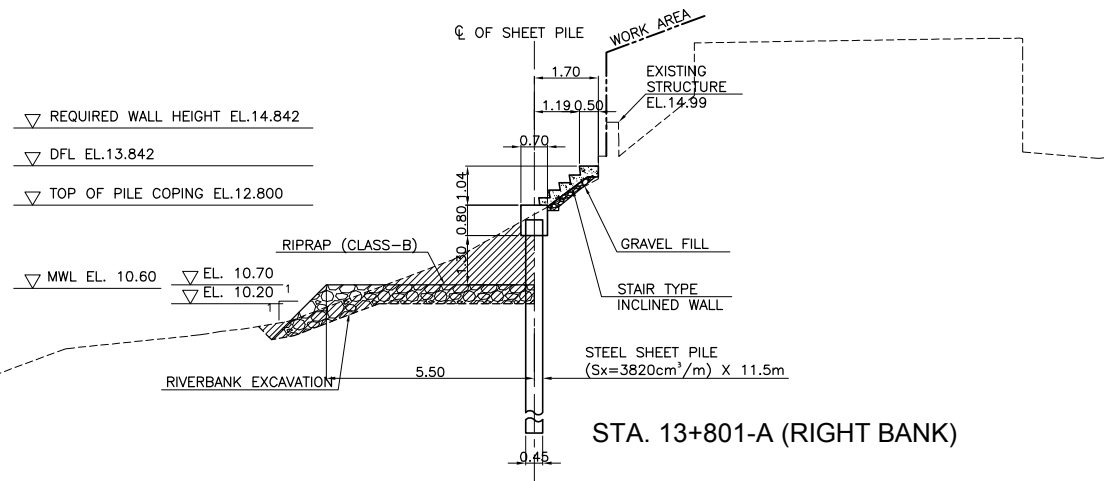
JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN			REPUBLIC OF THE PHILIPPINES				PROJECT & LOCATION		SHEET CONTENTS		SHEET NO.	
	DESIGNED BY:	CHECKED BY:	SUBMITTED BY:		REVIEWED BY:	RECOMMENDING APPROVAL:		APPROVED BY:		PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA	CROSS SECTION STA 13+578 ~ STA13+750 RIGHT BANK	
	EIJI MOKI STRUCTURAL ENGINEER I	TOSHIKI KAWAKAMI THE CHECKER	SHUJI KAKU TEAM LEADER		PERFECTO L. ZAPLAN, JR. CHIEF, HYDRAULIC DIVISION, BOD	PATRICK B. GATAN PROJECT DIRECTOR PMO - MFCP	GILBERTO S. REYES DIRECTOR BOD	SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY	SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY			



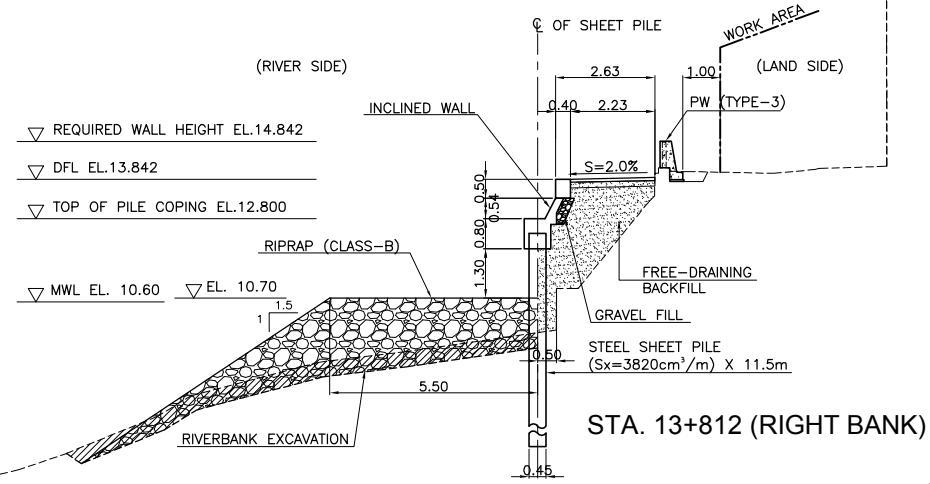
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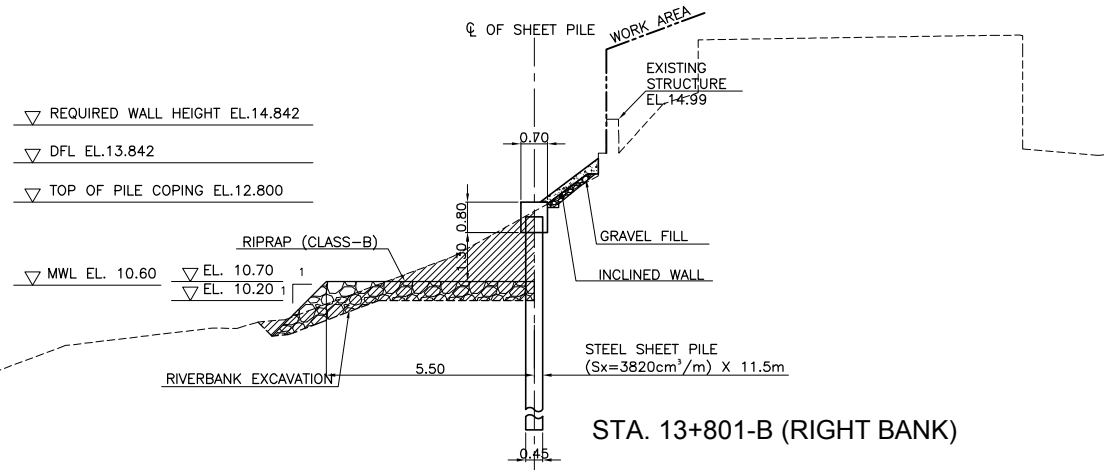
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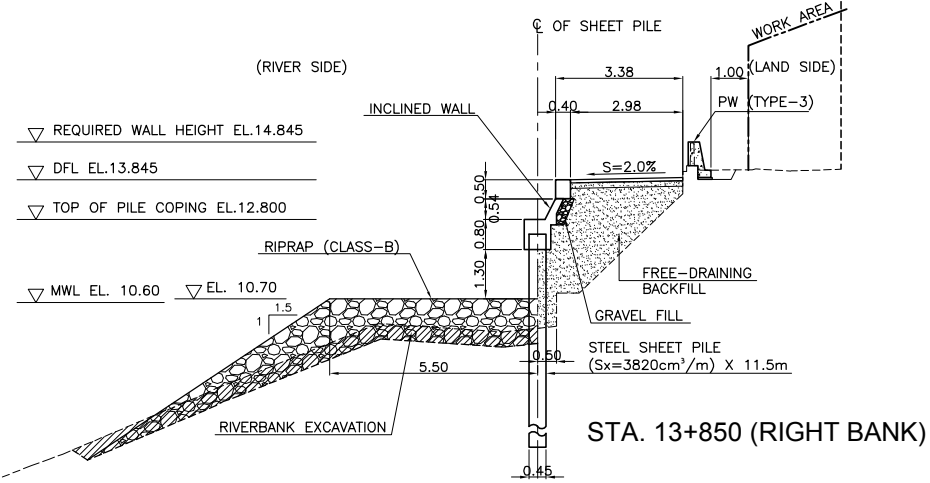
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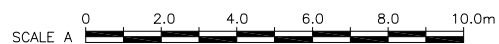
STA. 13+812 (RIGHT BANK)



STA. 13+801-B (RIGHT BANK)



STA. 13+850 (RIGHT BANK)



REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN



DESIGNED BY: EIJI MOKI
STRUCTURAL ENGINEER I

CHECKED BY: TOSHIKI KAWAKAMI
THE CHECKER

SUBMITTED BY: SHUJI KAKU
TEAM LEADER



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS
AND HIGHWAYS

REPUBLIC OF THE PHILIPPINES

REVIEWED BY: PERFECTO L. ZAPLAN, JR.
CHIEF, HYDRAULIC DIVISION, BOD

RECOMMENDING APPROVAL: PATRICK B. GATAN
PROJECT DIRECTOR
PMO - MFCP

GILBERTO S. REYES
DIRECTOR
BOD

APPROVED BY: RAUL C. ASIS
UNDERSECRETARY
FOR TECHNICAL SERVICES

ROGELIO L. SINGSON
SECRETARY

PROJECT & LOCATION

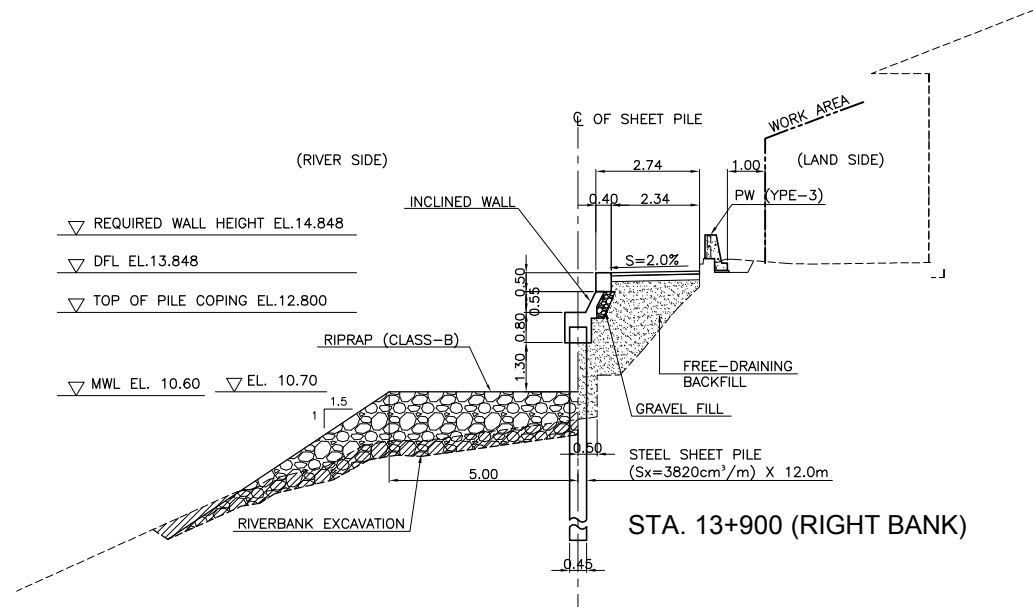
PASIG-MARIKINA
RIVER CHANNEL
IMPROVEMENT
PROJECT (PHASE III),
METRO MANILA

SHEET CONTENTS

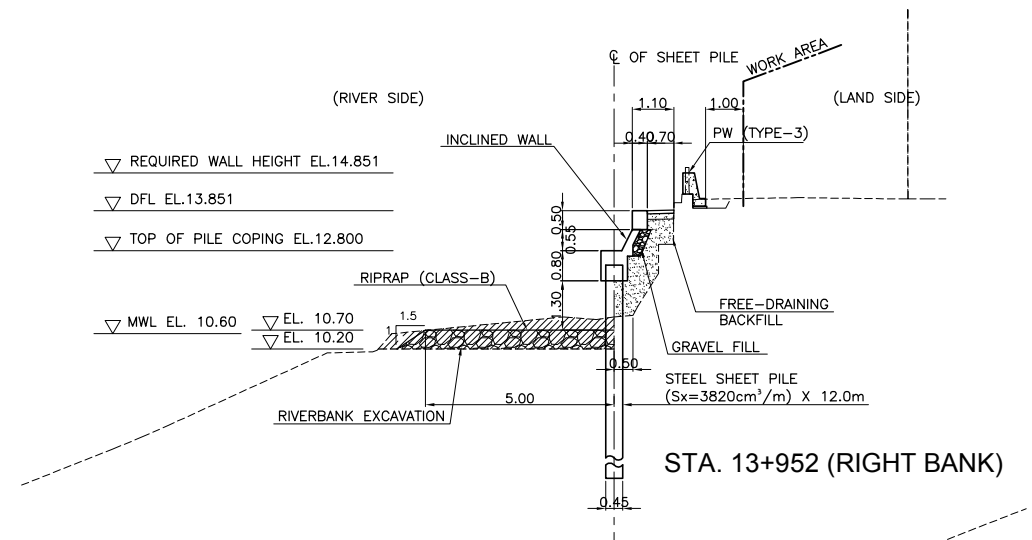
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STA 13+796 - STA 13+850
RIGHT BANK

SHEET NO.

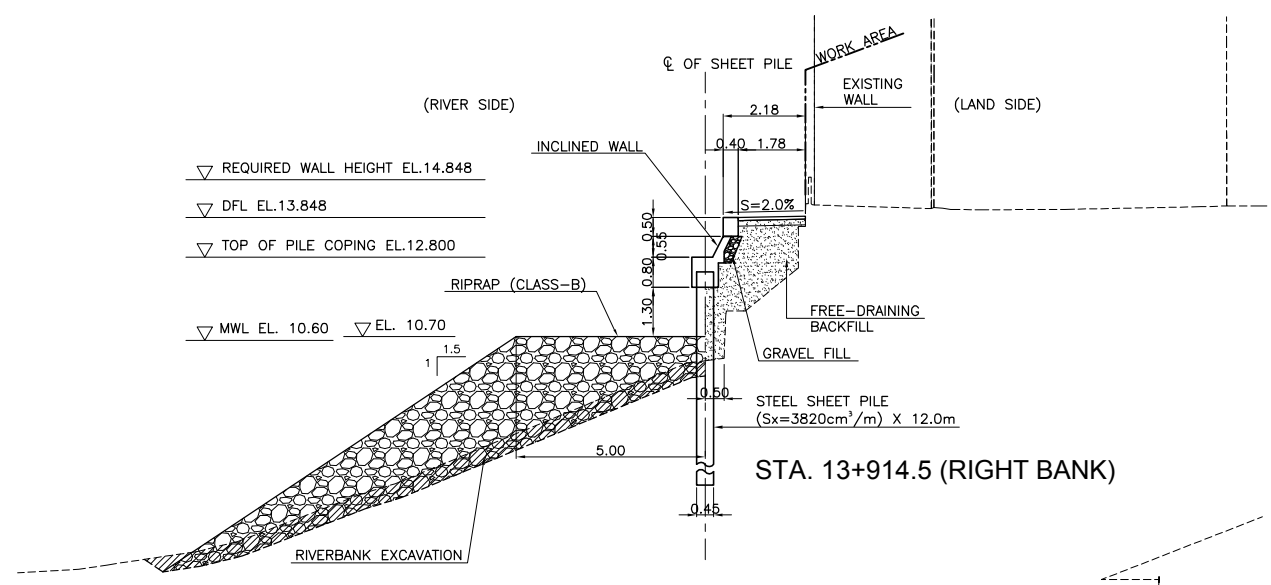
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CS 26



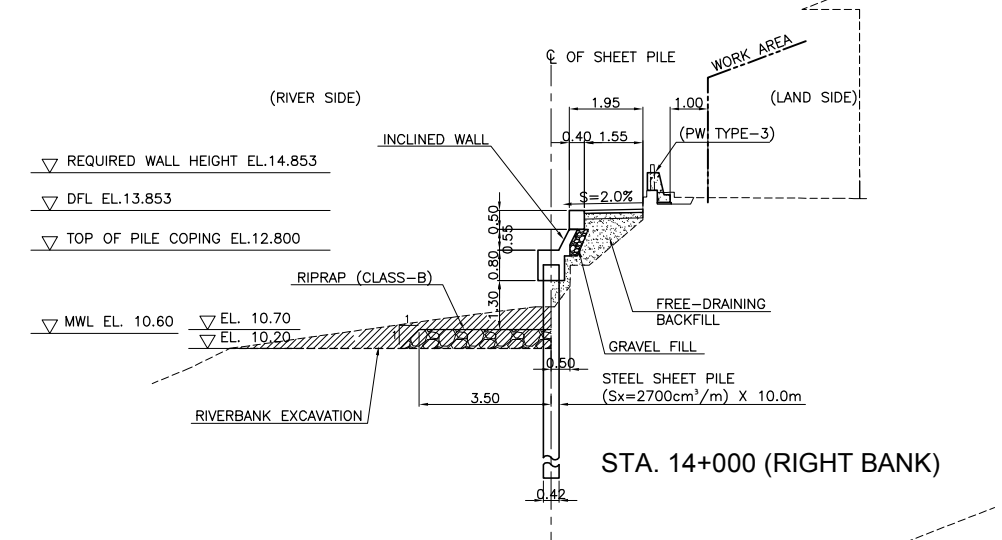
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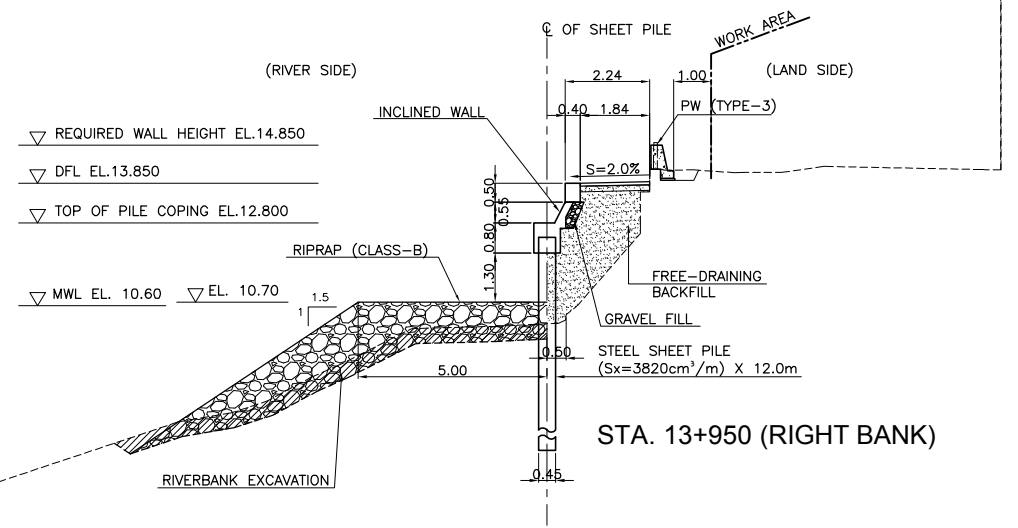
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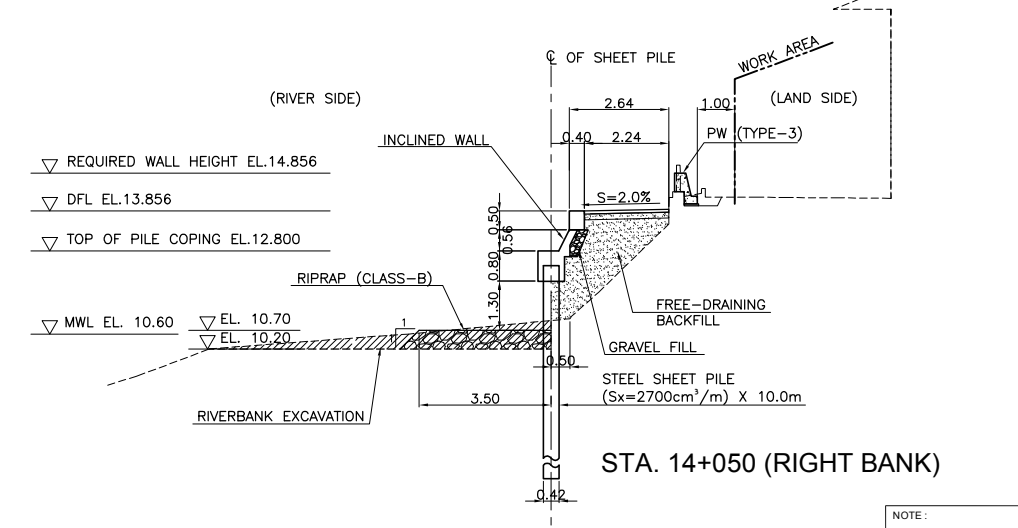
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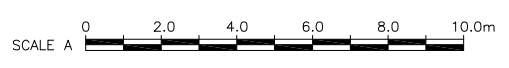
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STA. 13+950 (RIGHT BANK)



STA. 14+050 (RIGHT BANK)

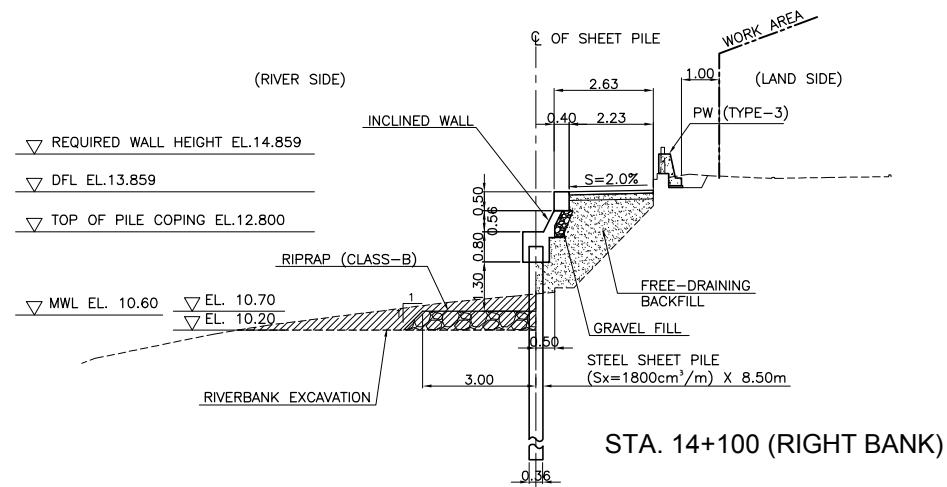


REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

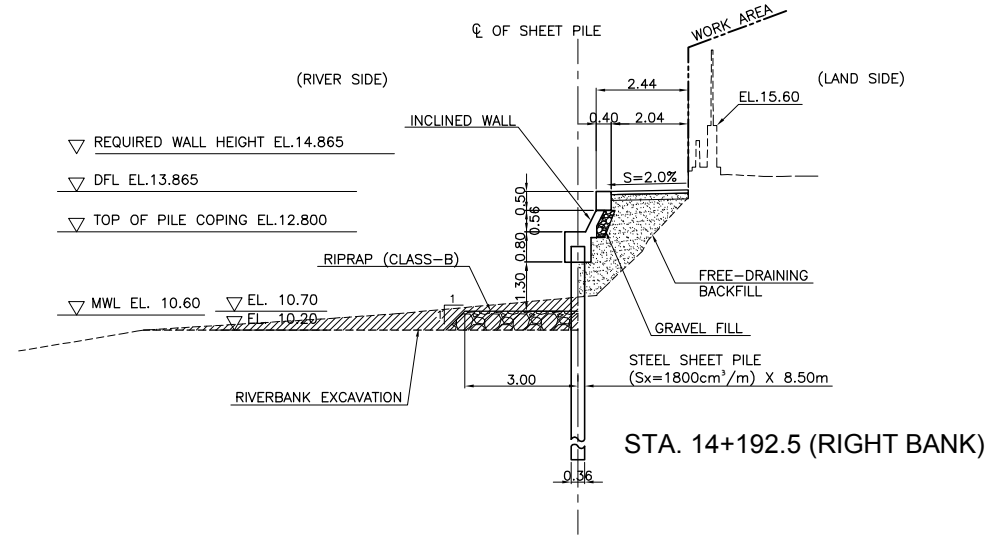
NOTE:
 PURSUANT TO SECTION 4 OF ANNEX 'A' OF THE REVISED IMPLEMENTING RULES AND REGULATIONS OF R.A. 9184, APPROVAL BY THE AUTHORIZED DPWH OFFICIALS OF DETAILED ENGINEERING SURVEYS AND DESIGN UNDERTAKEN BY CONSULTANTS NEITHER DIMINISHES THE RESPONSIBILITY OF THE LATTER FOR THE TECHNICAL INTEGRITY OF THE SURVEYS AND DESIGN NOR TRANSFER ANY PART OF THAT RESPONSIBILITY TO THE APPROVING OFFICIALS.

SHUJI KAKU
 TEAM LEADER

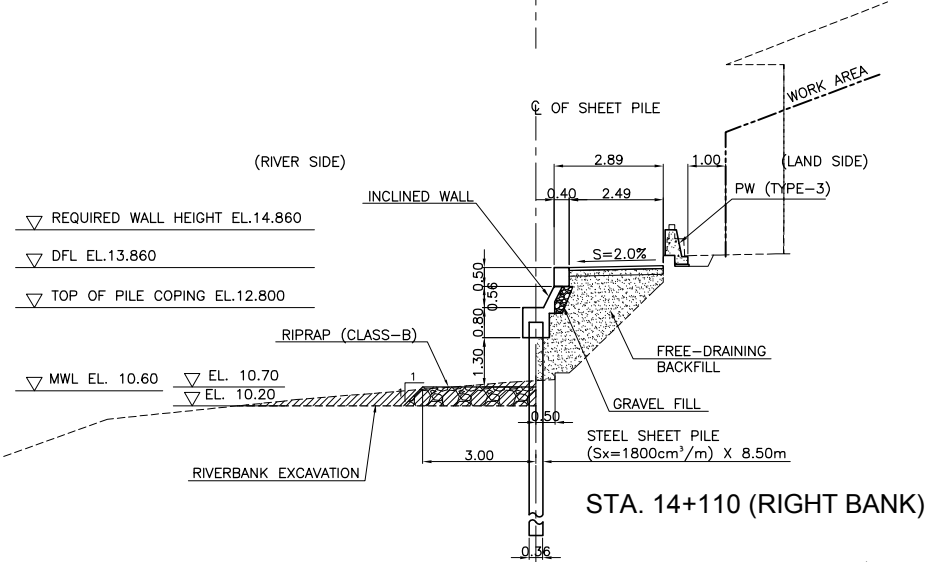
JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN			REPUBLIC OF THE PHILIPPINES				PROJECT & LOCATION	SHEET CONTENTS	SHEET NO.
	DESIGNED BY:	CHECKED BY:	SUBMITTED BY:	REVIEWED BY:	RECOMMENDING APPROVAL:	APPROVED BY:	PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA	CROSS SECTION STA 13+900 ~ STA14+050 RIGHT BANK	
	EIJI MOKI STRUCTURAL ENGINEER I	TOSHIKI KAWAKAMI THE CHECKER	SHUJI KAKU TEAM LEADER		PERFECTO L. ZAPLAN, JR. CHIEF, HYDRAULIC DIVISION, BOD	PATRICK B. GATAN PROJECT DIRECTOR PMO - MFCP			



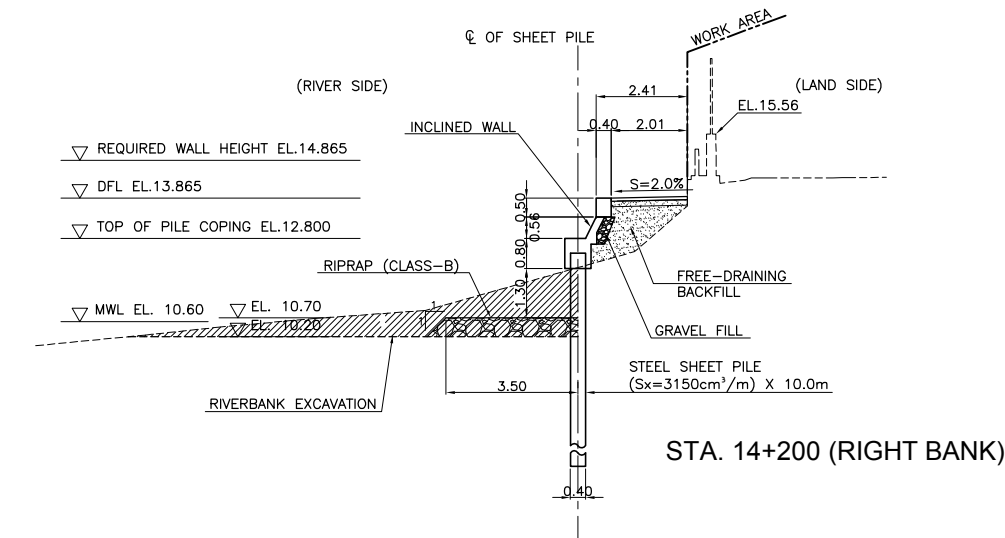
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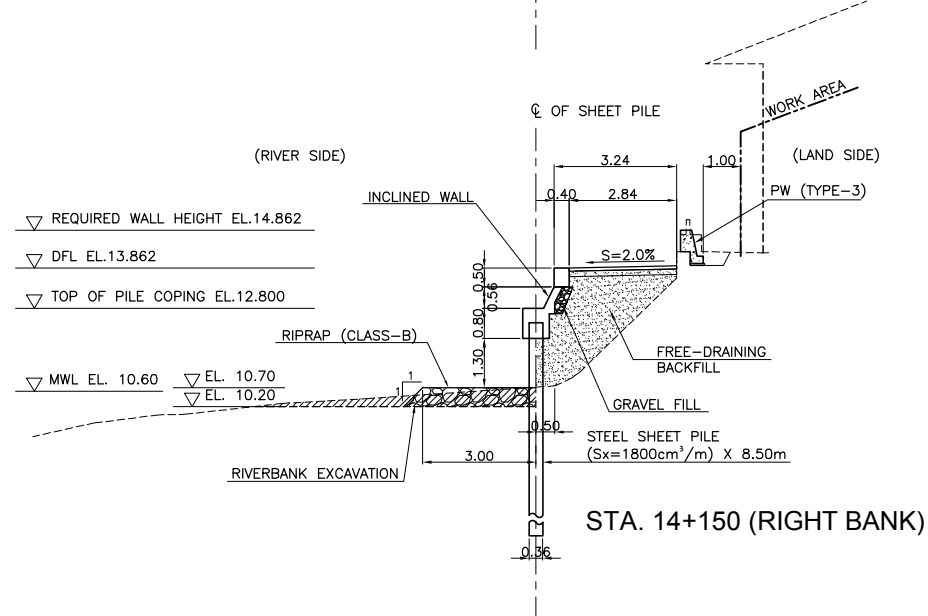
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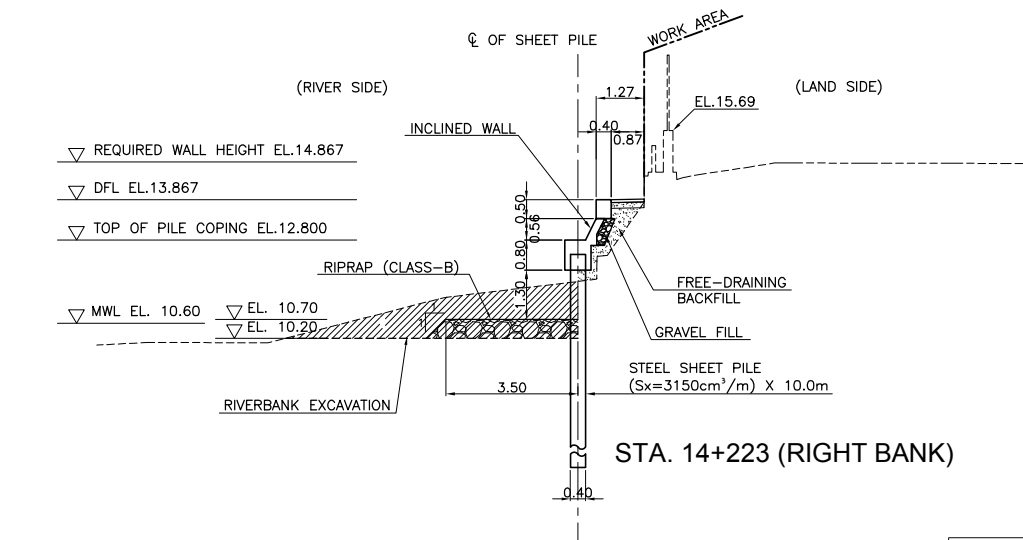
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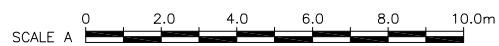
STA. 14+200 (RIGHT BANK)



STA. 14+150 (RIGHT BANK)



STA. 14+223 (RIGHT BANK)



REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

NOTE:
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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN

REPUBLIC OF THE PHILIPPINES



DESIGNED BY: EIJI MOKI
STRUCTURAL ENGINEER I

CHECKED BY: TOSHIKI KAWAKAMI
THE CHECKER

SUBMITTED BY: SHUJI KAKU
TEAM LEADER



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS
AND HIGHWAYS

REVIEWED BY: PERFECTO L. ZAPLAN, JR.
CHIEF, HYDRAULIC DIVISION, BOD

RECOMMENDING APPROVAL: PATRICK B. GATAN
PROJECT DIRECTOR
PMO - MFCP

GILBERTO S. REYES
DIRECTOR
BOD

SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY

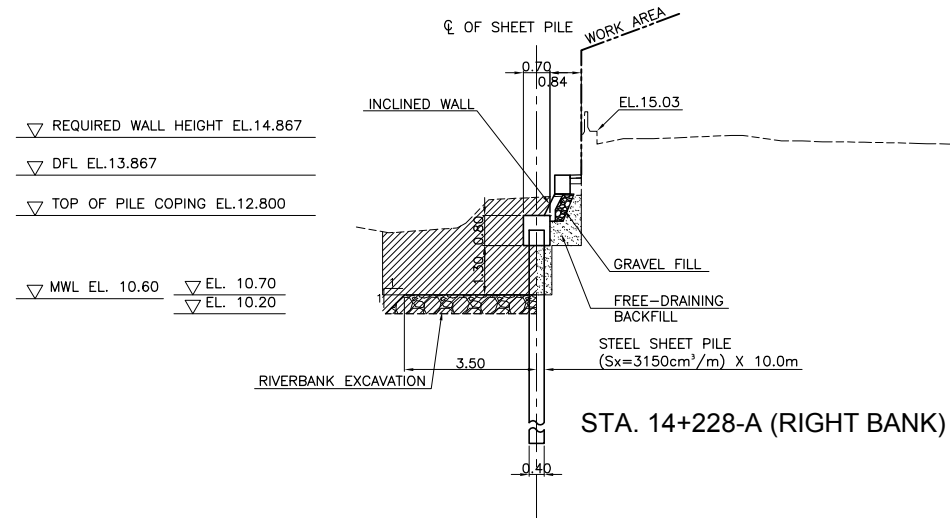
RAUL C. ASIS
UNDERSECRETARY
FOR TECHNICAL SERVICES

APPROVED BY: ROGELIO L. SINGSON
SECRETARY

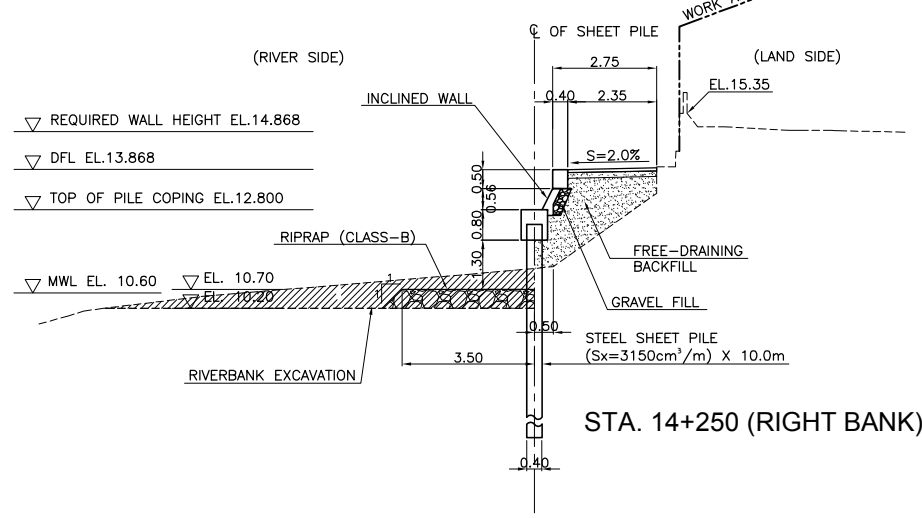
PROJECT & LOCATION
PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA

SHEET CONTENTS
CROSS SECTION STA 14+100 ~ STA14+223
RIGHT BANK

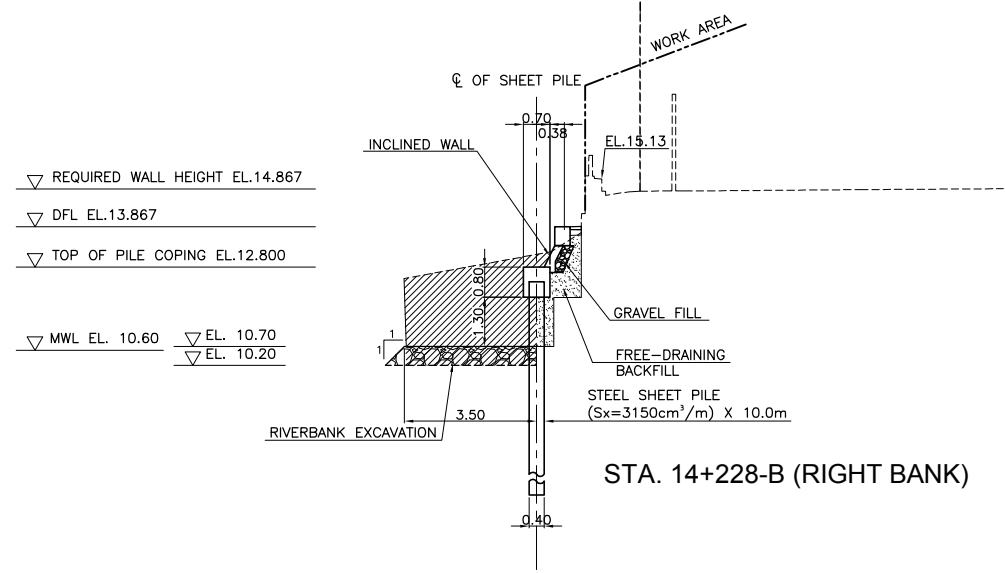
SHEET NO.
UP-RS
CS 28



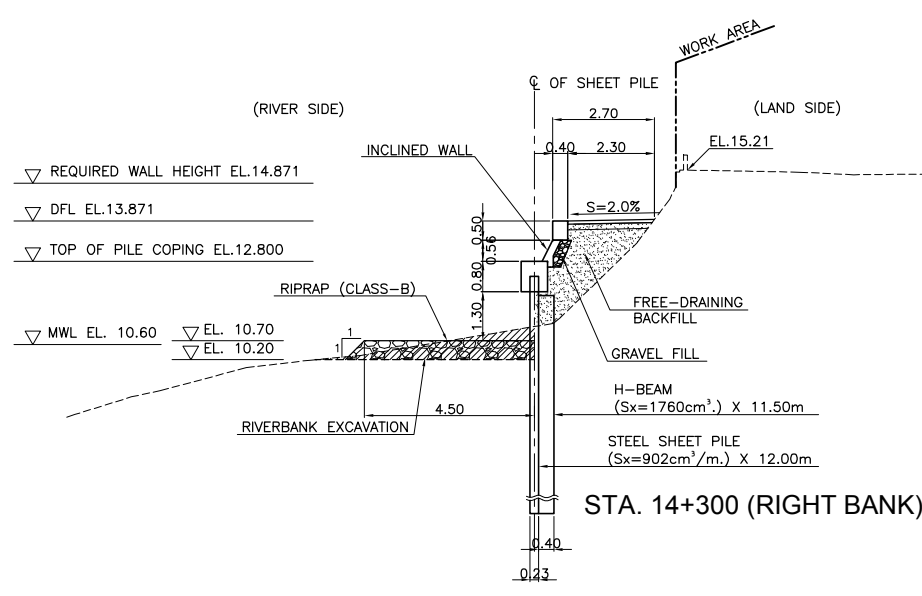
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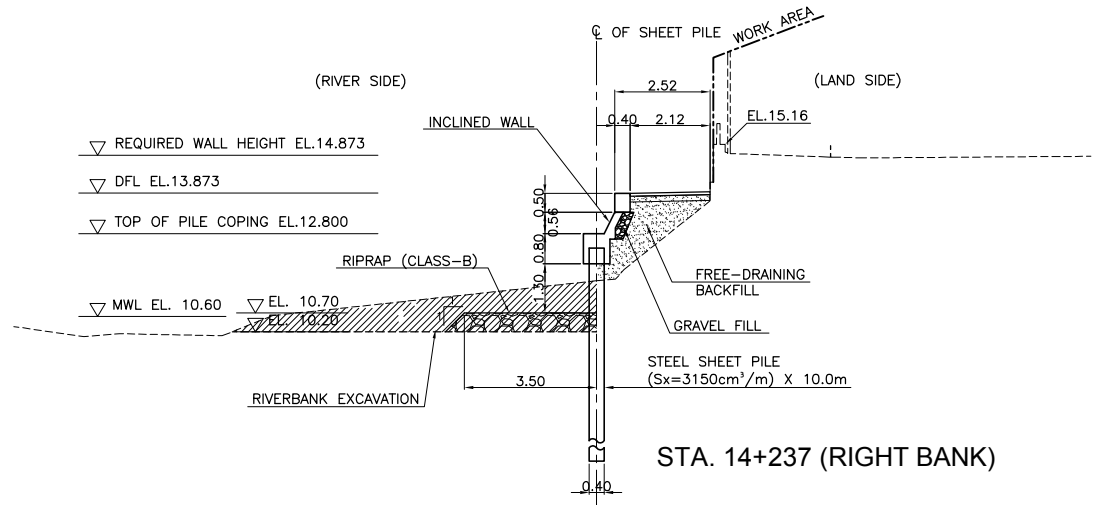
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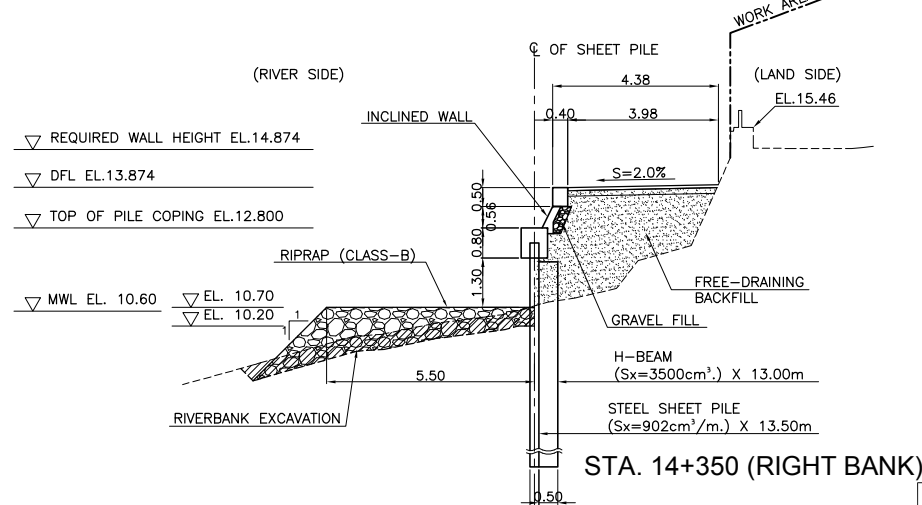
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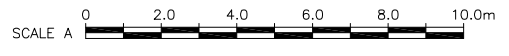
STA. 14+300 (RIGHT BANK)



STA. 14+237 (RIGHT BANK)



STA. 14+350 (RIGHT BANK)

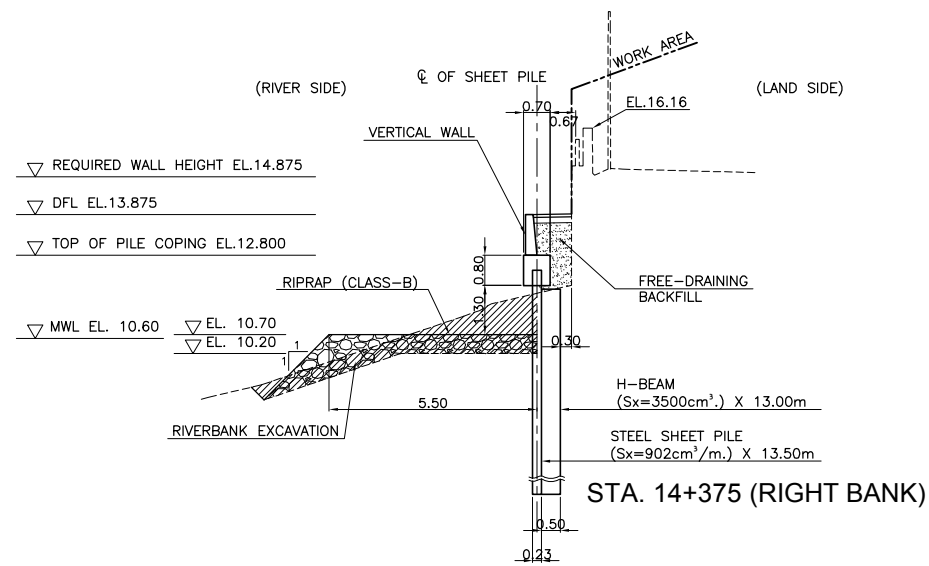


REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

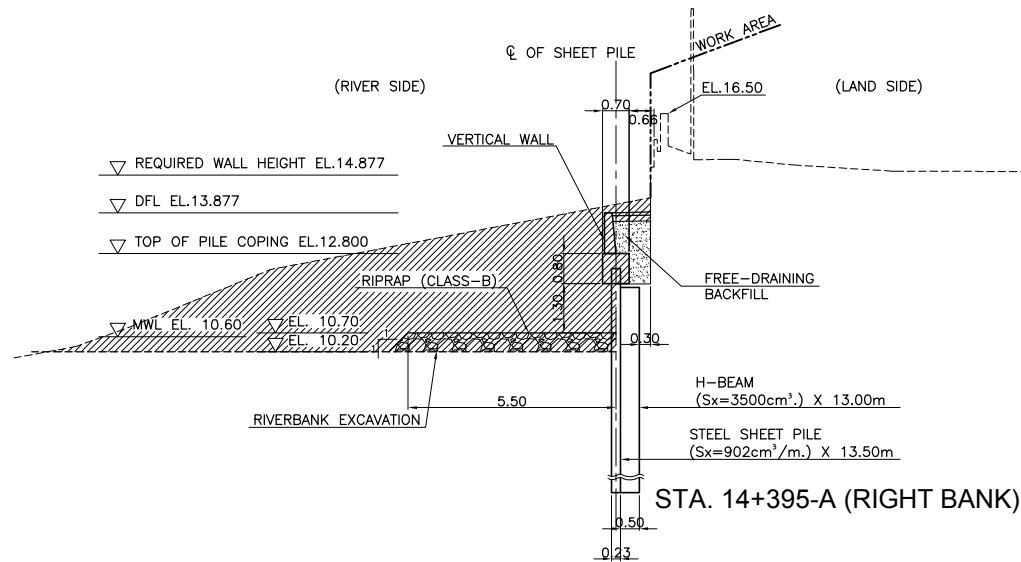
NOTE: PURSUANT TO SECTION 4 OF ANNEX 'A' OF THE REVISED IMPLEMENTING RULES AND REGULATIONS OF R.A. 9184, APPROVAL BY THE AUTHORIZED DPWH OFFICIALS OF DETAILED ENGINEERING SURVEYS AND DESIGN UNDERTAKEN BY CONSULTANTS NEITHER DIMINISHES THE RESPONSIBILITY OF THE LATTER FOR THE TECHNICAL INTEGRITY OF THE SURVEYS AND DESIGN NOR TRANSFER ANY PART OF THAT RESPONSIBILITY TO THE APPROVING OFFICIALS.

SHUJI KAKU
TEAM LEADER

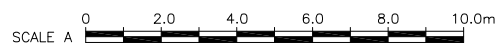
JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN 			REPUBLIC OF THE PHILIPPINES 			PROJECT & LOCATION PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA		SHEET CONTENTS CROSS SECTION STA 14+228-A - STA14+350 RIGHT BANK		SHEET NO.
DESIGNED BY: EIJI MOKI <small>STRUCTURAL ENGINEER I</small>	CHECKED BY: TOSHIKI KAWAKAMI <small>THE CHECKER</small>	SUBMITTED BY: SHUJI KAKU <small>TEAM LEADER</small>	REVIEWED BY: PERFECTO L. ZAPLAN, JR. <small>CHIEF, HYDRAULIC DIVISION, BOD</small>	RECOMMENDING APPROVAL: PATRICK B. GATAN <small>PROJECT DIRECTOR PMO - MFCP</small>	APPROVED BY: GILBERTO S. REYES <small>DIRECTOR BOD</small>	<small>SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE UNDERSECRETARY</small> RAUL C. ASIS <small>UNDERSECRETARY FOR TECHNICAL SERVICES</small>	<small>SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY</small> ROGELIO L. SINGSON <small>SECRETARY</small>	REVISIONS		



STA. 14+375 (RIGHT BANK)



STA. 14+395-A (RIGHT BANK)



REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

NOTE:
PURSUANT TO SECTION 4 OF ANNEX 'A' OF THE REVISED IMPLEMENTING RULES AND REGULATIONS OF R.A. 9184, APPROVAL BY THE AUTHORIZED DPWH OFFICIALS OF DETAILED ENGINEERING SURVEYS AND DESIGN UNDERTAKEN BY CONSULTANTS NEITHER DIMINISHES THE RESPONSIBILITY OF THE LATTER FOR THE TECHNICAL INTEGRITY OF THE SURVEYS AND DESIGN NOR TRANSFER ANY PART OF THAT RESPONSIBILITY TO THE APPROVING OFFICIALS.

SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN

REPUBLIC OF THE PHILIPPINES



DESIGNED BY: EIJI MOKI
STRUCTURAL ENGINEER I

CHECKED BY: TOSHIKI KAWAKAMI
THE CHECKER

SUBMITTED BY: SHUJI KAKU
TEAM LEADER



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS
AND HIGHWAYS

REVIEWED BY: PERFECTO L. ZAPLAN, JR.
CHIEF, HYDRAULIC DIVISION, BOD

RECOMMENDING APPROVAL: PATRICK B. GATAN
PROJECT DIRECTOR
PMO - MFCP

GILBERTO S. REYES
DIRECTOR
BOD

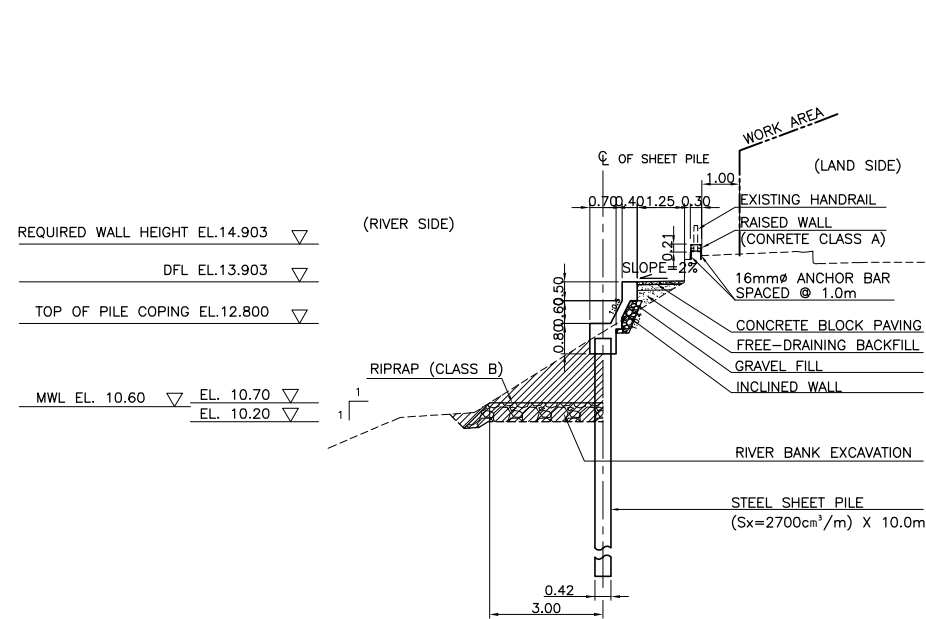
RAUL C. ASIS
UNDERSECRETARY
FOR TECHNICAL SERVICES

APPROVED BY: ROGELIO L. SINGSON
SECRETARY

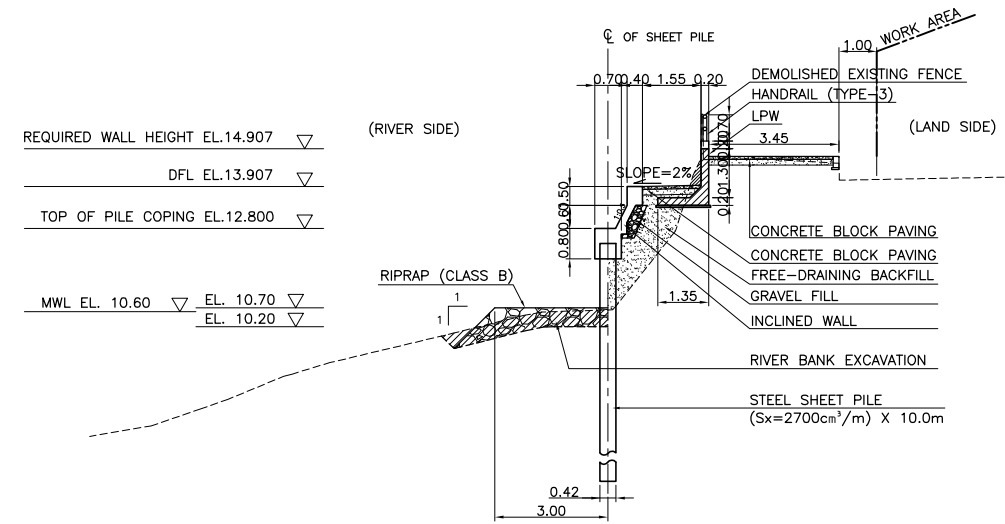
PROJECT & LOCATION
PASIG-MARIKINA
RIVER CHANNEL
IMPROVEMENT
PROJECT (PHASE III),
METRO MANILA

SHEET CONTENTS
CROSS SECTION
STA 14+375 - STA14+395-A
RIGHT BANK

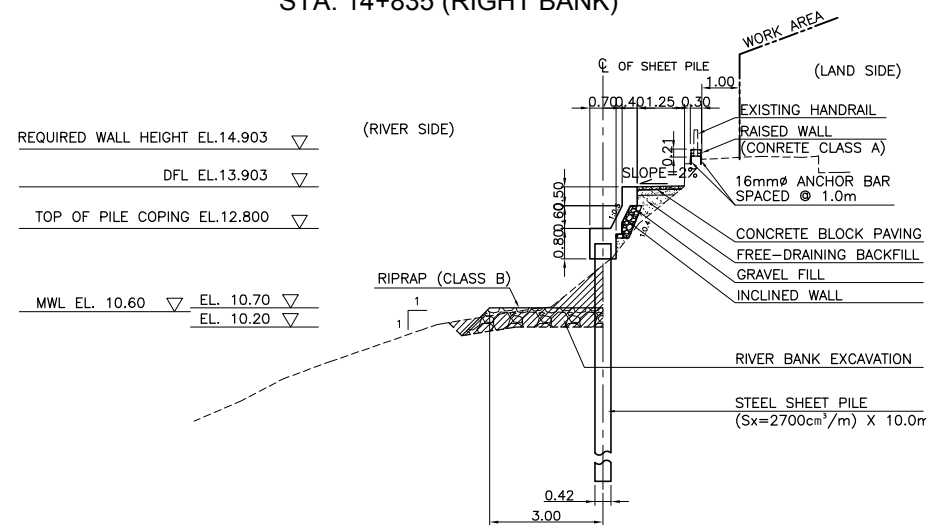
SHEET NO.
UP-RS
CS 30



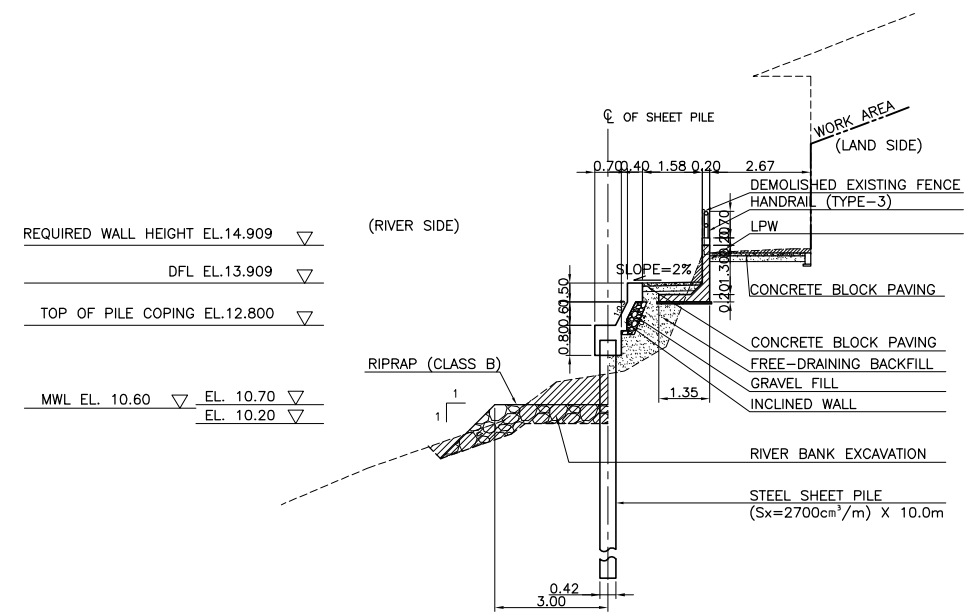
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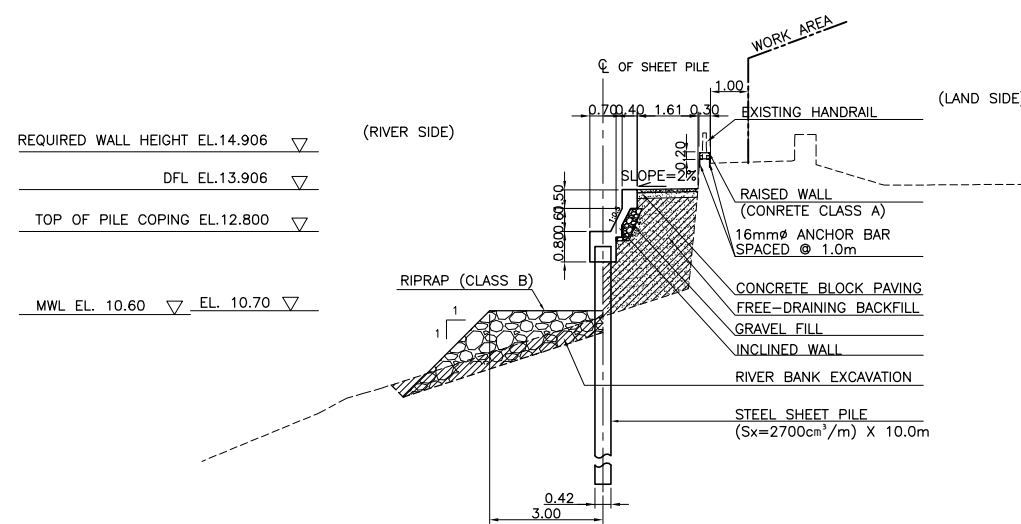
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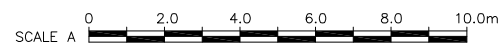
STA. 14+850 (RIGHT BANK)



STA. 14+943 (RIGHT BANK)



STA. 14+900 (RIGHT BANK)



REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN

REPUBLIC OF THE PHILIPPINES



DESIGNED BY: EJI MOKI STRUCTURAL ENGINEER I	CHECKED BY: TOSHIKI KAWAKAMI THE CHECKER	SUBMITTED BY: SHUJI KAKU TEAM LEADER
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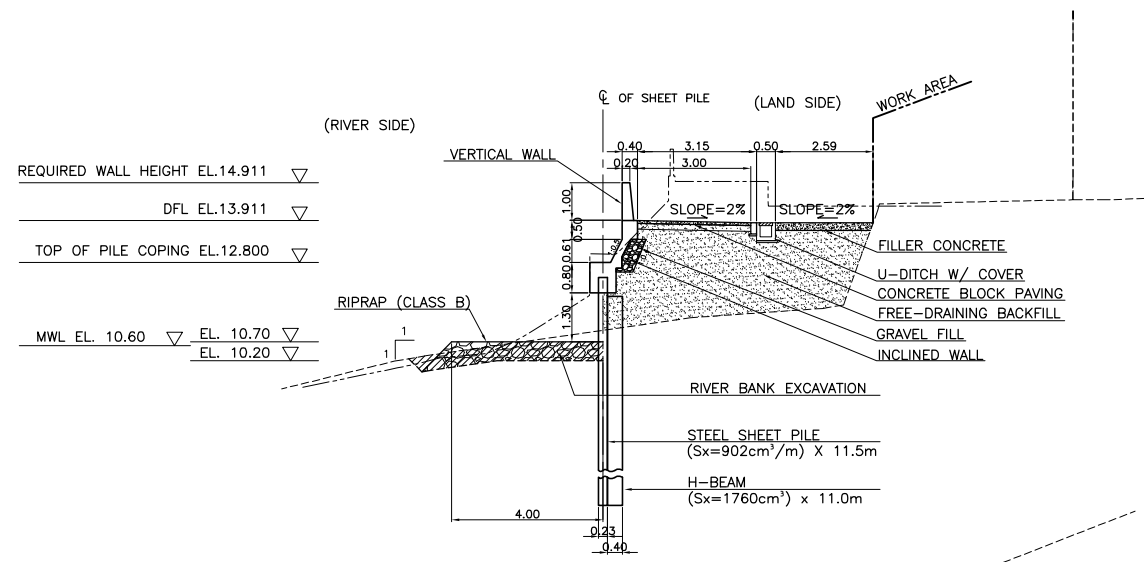
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS
AND HIGHWAYS

REVIEWED BY: PERFECTO L. ZAPLAN, JR. CHIEF, HYDRAULIC DIVISION, BOD	RECOMMENDING APPROVAL: PATRICK B. GATAN PROJECT DIRECTOR PMO - MFCP	GILBERTO S. REYES DIRECTOR BOD	SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY RAUL C. ASIS UNDERSECRETARY FOR TECHNICAL SERVICES	APPROVED BY: SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY ROGELIO L. SINGSON SECRETARY
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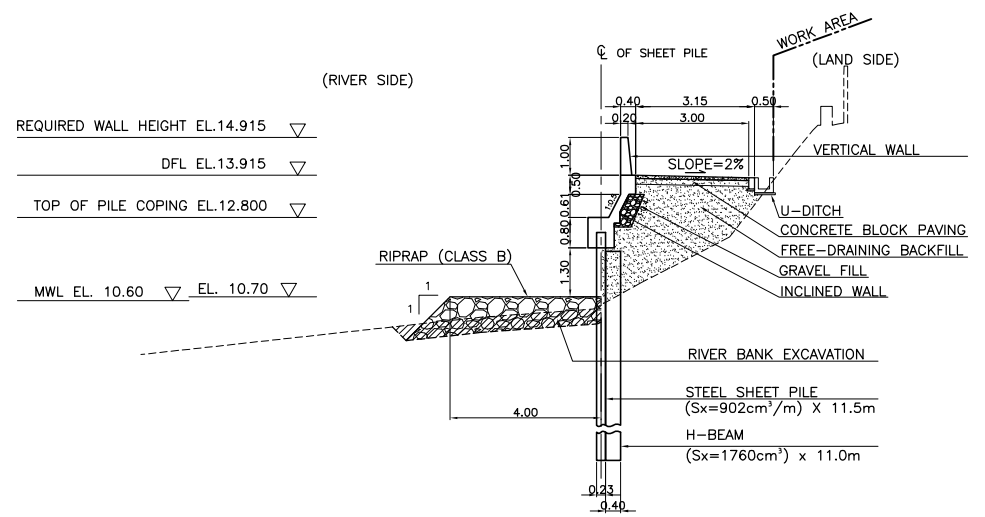
PROJECT & LOCATION
PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA

SHEET CONTENTS
CROSS SECTION
STA 14+835 ~ STA 14+943
(RIGHT BANK)

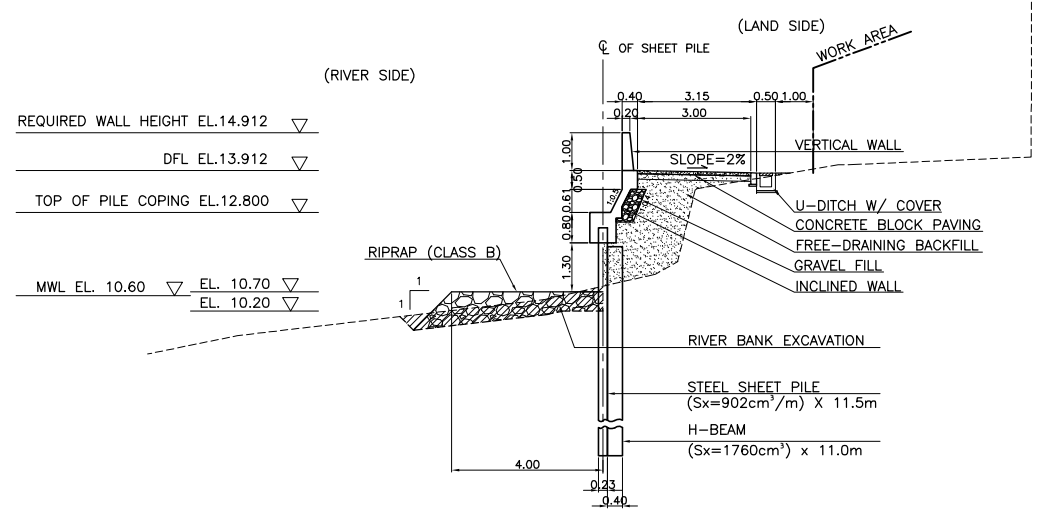
SHEET NO.
UP-RS
CS 31



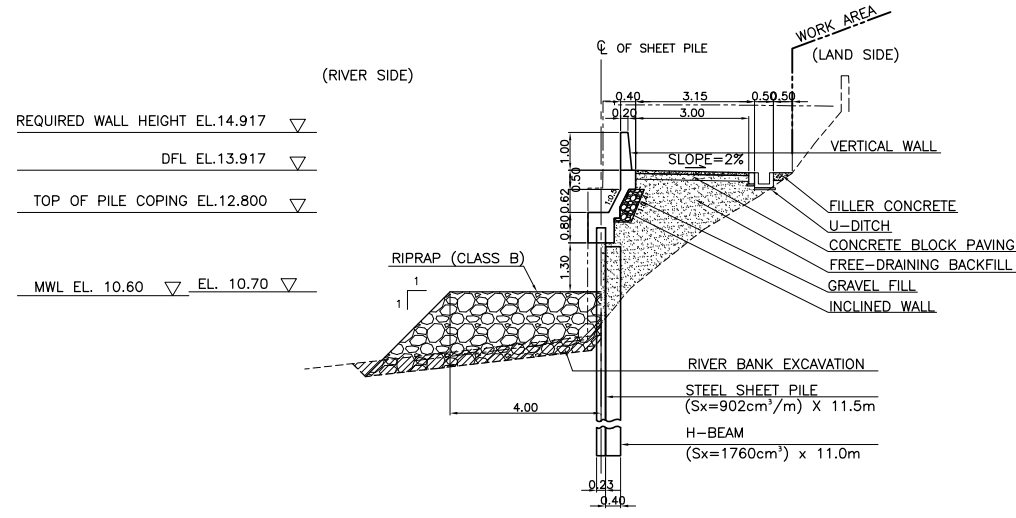
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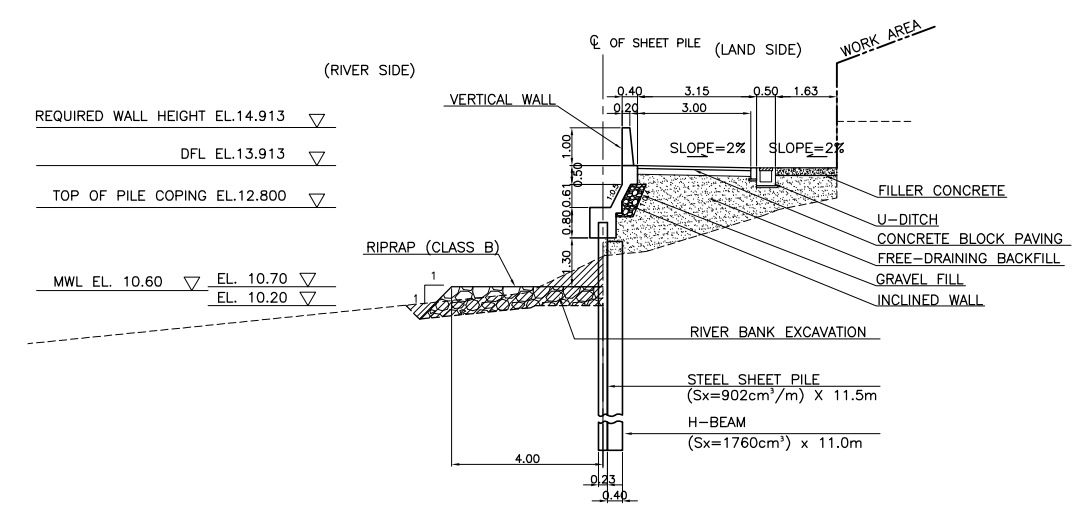
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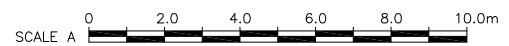
STA. 15+000 (RIGHT BANK)



STA. 15+075 (RIGHT BANK)



STA. 15+024 (RIGHT BANK)

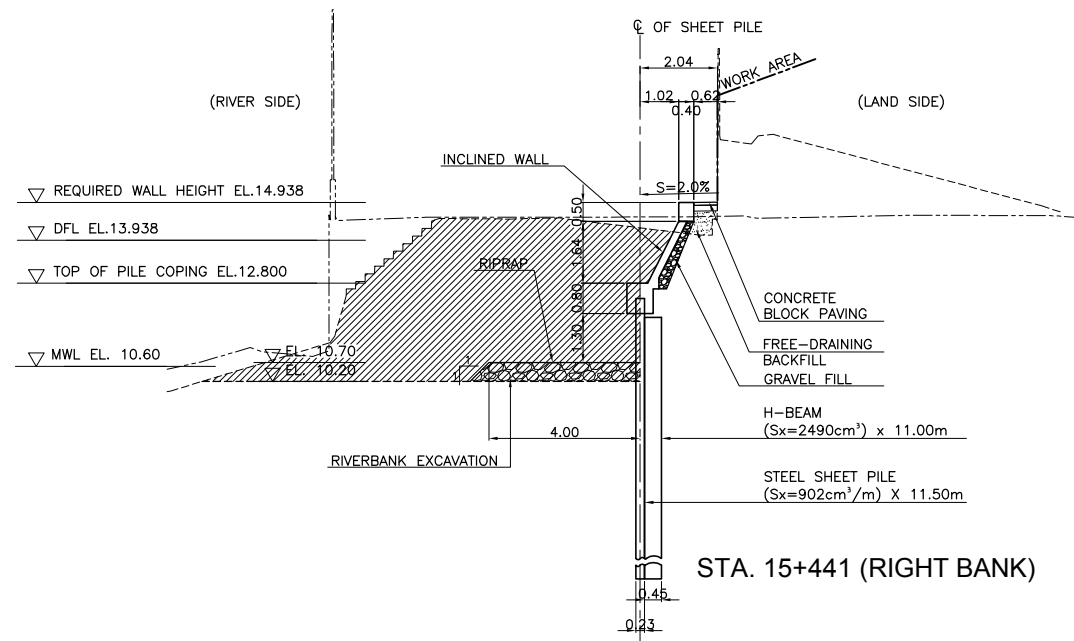
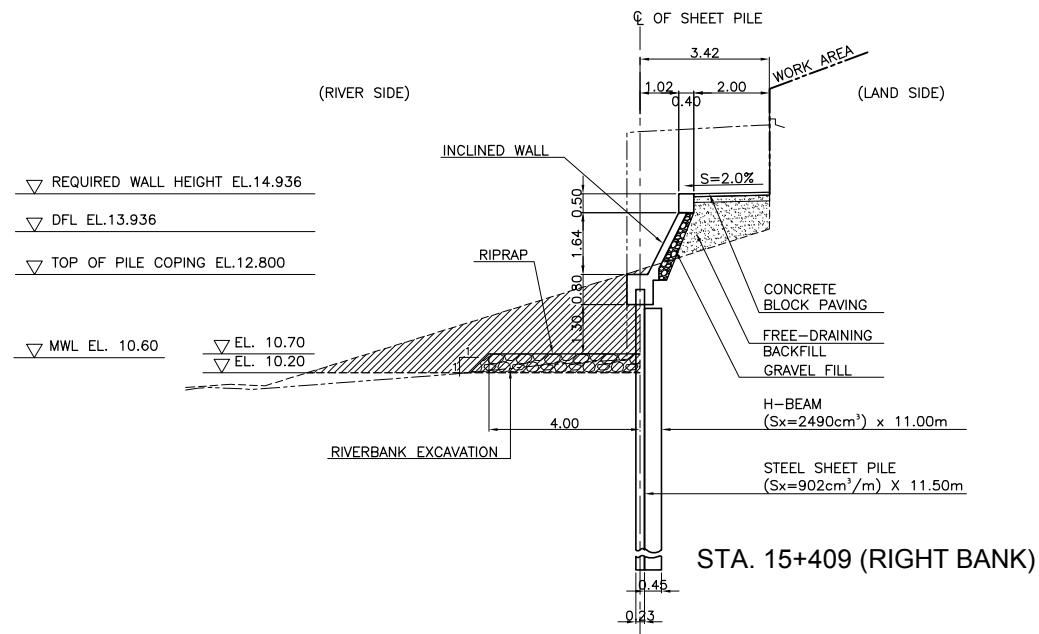


REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

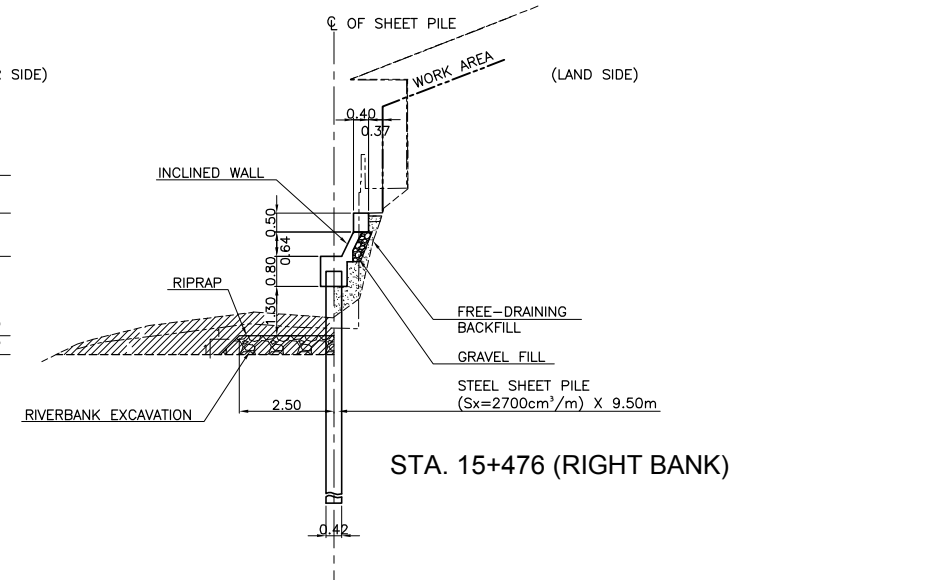
NOTE:
PURSUANT TO SECTION 4 OF ANNEX 'A' OF THE REVISED IMPLEMENTING RULES AND REGULATIONS OF R.A. 9184, APPROVAL BY THE AUTHORIZED DPWH OFFICIALS OF DETAILED ENGINEERING SURVEYS AND DESIGN UNDERTAKEN BY CONSULTANTS NEITHER DIMINISHES THE RESPONSIBILITY OF THE LATTER FOR THE TECHNICAL INTEGRITY OF THE SURVEYS AND DESIGN NOR TRANSFER ANY PART OF THAT RESPONSIBILITY TO THE APPROVING OFFICIALS.

SHUJI KAKU
TEAM LEADER

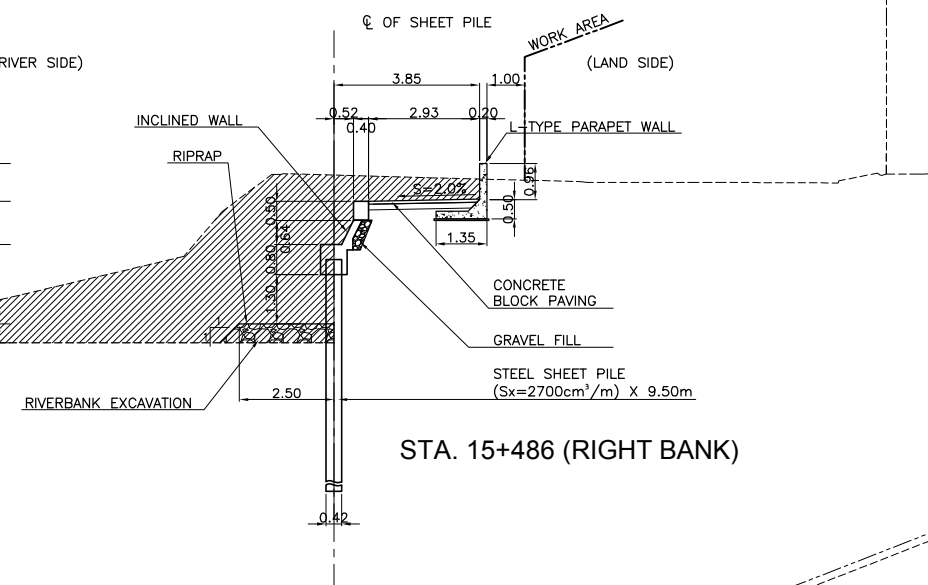
JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN			REPUBLIC OF THE PHILIPPINES				PROJECT & LOCATION		SHEET CONTENTS		SHEET NO.
	DESIGNED BY:	CHECKED BY:	SUBMITTED BY:	REVIEWED BY:	RECOMMENDING APPROVAL:	APPROVED BY:		PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA	CROSS SECTION STA 14+983 ~ STA 15+075 (RIGHT BANK)		
	EIJI MOKI STRUCTURAL ENGINEER I	TOSHIKI KAWAKAMI THE CHECKER	SHUJI KAKU TEAM LEADER	PERFECTO L. ZAPLAN, JR. CHIEF, HYDRAULIC DIVISION, BOD	PATRICK B. GATAN PROJECT DIRECTOR PMO - MFCP	GILBERTO S. REYES DIRECTOR BOD	SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY RAUL C. ASIS UNDERSECRETARY FOR TECHNICAL SERVICES				SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY ROGELIO L. SINGSON SECRETARY



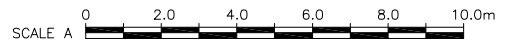
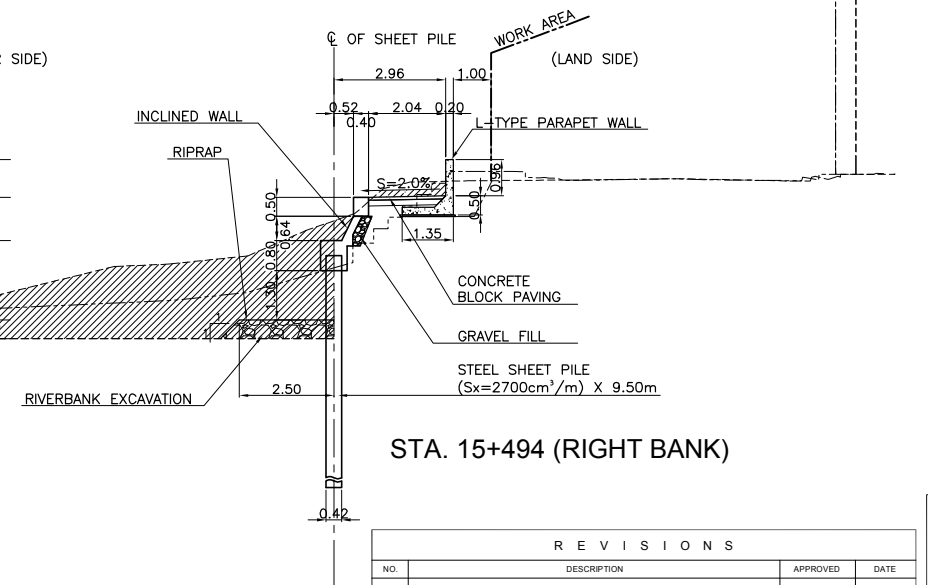
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 ∇ DFL EL.13.940
 ∇ TOP OF PILE COPING EL.12.800
 ∇ MWL EL. 10.60 ∇ EL. 10.70
 ∇ EL. 10.20



∇ REQUIRED WALL HEIGHT EL.14.941
 ∇ DFL EL.13.941
 ∇ TOP OF PILE COPING EL.12.800
 ∇ MWL EL. 10.60 ∇ EL. 10.70
 ∇ EL. 10.20



∇ REQUIRED WALL HEIGHT EL.14.941
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 ∇ TOP OF PILE COPING EL.12.800
 ∇ MWL EL. 10.60 ∇ EL. 10.70
 ∇ EL. 10.20



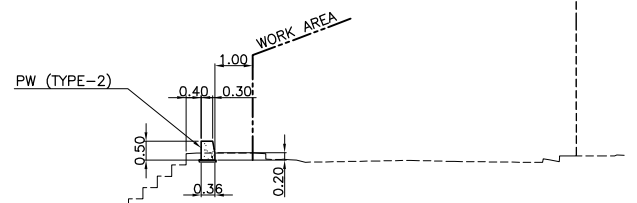
REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

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SHUJI KAKU
 TEAM LEADER

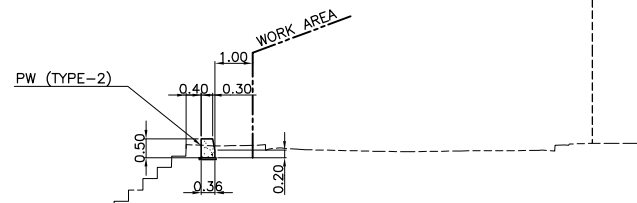
JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN			REPUBLIC OF THE PHILIPPINES				PROJECT & LOCATION		SHEET CONTENTS		SHEET NO.	
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	EJI MOKI <small>STRUCTURAL ENGINEER I</small>	TOSHIKI KAWAKAMI <small>THE CHECKER</small>	SHUJI KAKU <small>TEAM LEADER</small>		PERFECTO L. ZAPLAN, JR. <small>CHIEF, HYDRAULIC DIVISION, BOD</small>	PATRICK B. GATAN <small>PROJECT DIRECTOR PMO - MFCP</small>	GILBERTO S. REYES <small>DIRECTOR BOD</small>	<small>SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE UNDERSECRETARY</small> RAUL C. ASIS <small>UNDERSECRETARY FOR TECHNICAL SERVICES</small>	<small>SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY</small> ROGELIO L. SINGSON <small>SECRETARY</small>			

▽ REQUIRED WALL HEIGHT EL.14.941
 ▽ DFL EL.13.941



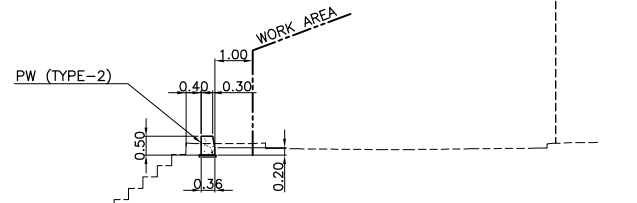
STA. 15+494 (RIGHT BANK)

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 ▽ DFL EL.13.945



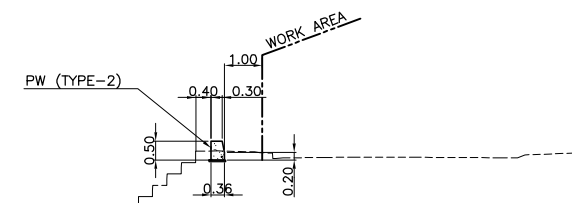
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 ▽ DFL EL.13.948



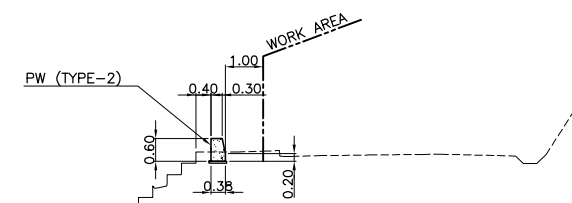
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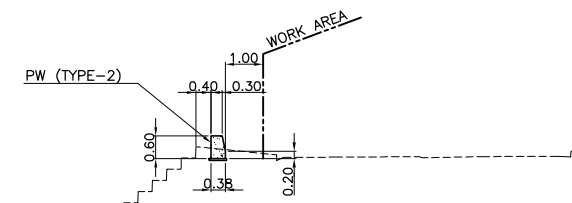
STA. 15+650 (RIGHT BANK)

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STA. 15+700 (RIGHT BANK)

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 ▽ DFL EL.13.956



STA. 15+750 (RIGHT BANK)

▽ MWL EL. 10.60

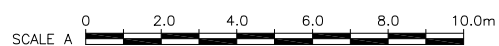
▽ MWL EL. 10.60

▽ MWL EL. 10.60

▽ MWL EL. 10.60

▽ MWL EL. 10.60

▽ MWL EL. 10.60



REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

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SHUJI KAKU
 TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN

REPUBLIC OF THE PHILIPPINES



DESIGNED BY: EIJI MOKI
 STRUCTURAL ENGINEER I

CHECKED BY: TOSHIKI KAWAKAMI
 THE CHECKER

SUBMITTED BY: SHUJI KAKU
 TEAM LEADER



REPUBLIC OF THE PHILIPPINES
 DEPARTMENT OF PUBLIC WORKS
 AND HIGHWAYS

REVIEWED BY: PERFECTO L. ZAPLAN, JR.
 CHIEF, HYDRAULIC DIVISION, BOD

RECOMMENDING APPROVAL: PATRICK B. GATAN
 PROJECT DIRECTOR
 PMO - MFCP

GILBERTO S. REYES
 DIRECTOR
 BOD

SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY

APPROVED BY: RAUL C. ASIS
 UNDERSECRETARY FOR TECHNICAL SERVICES

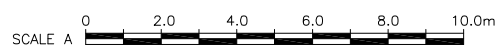
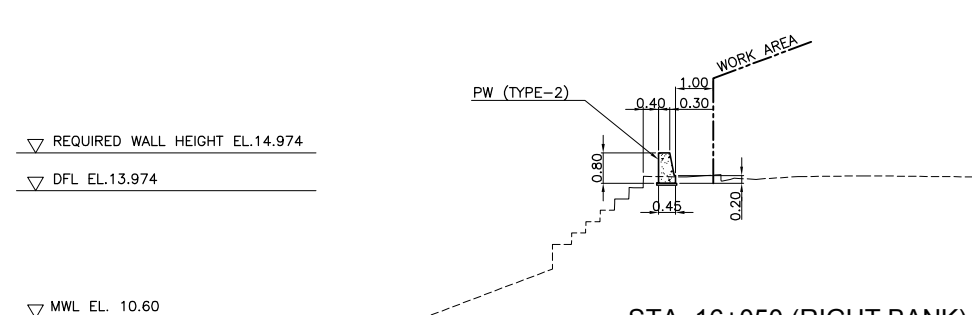
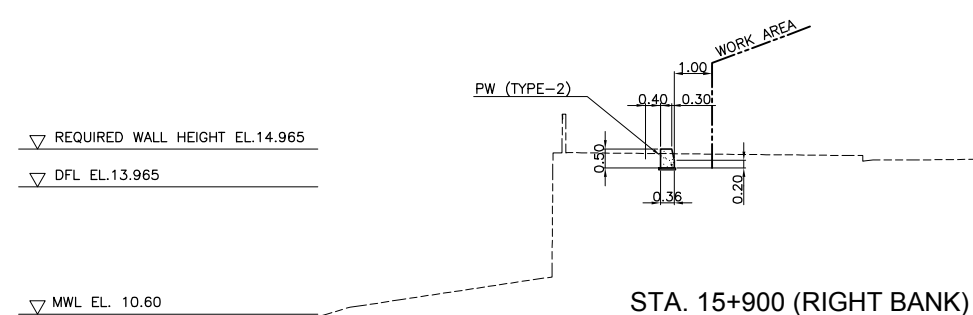
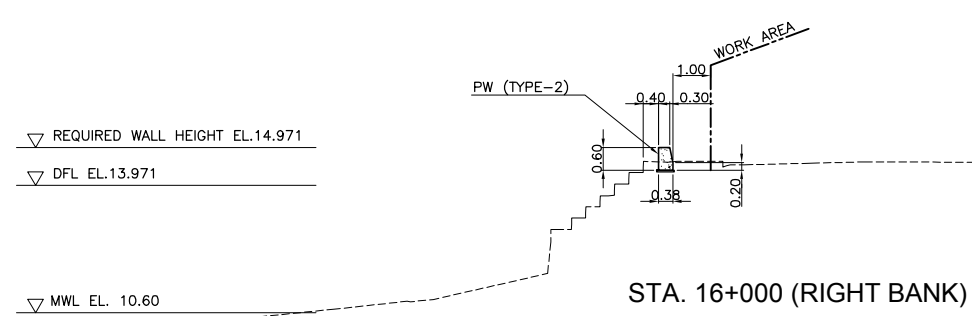
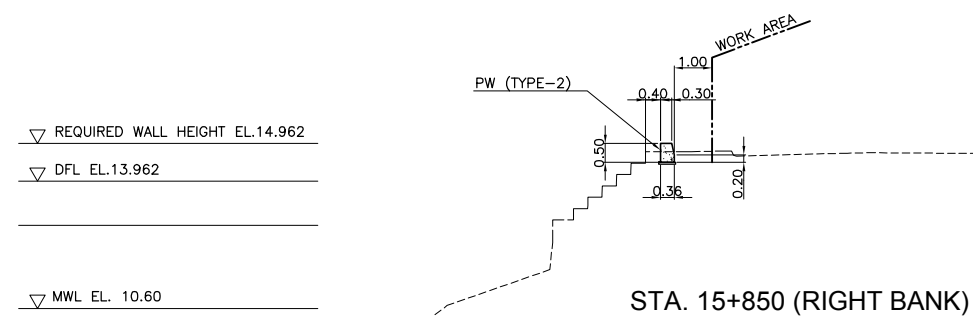
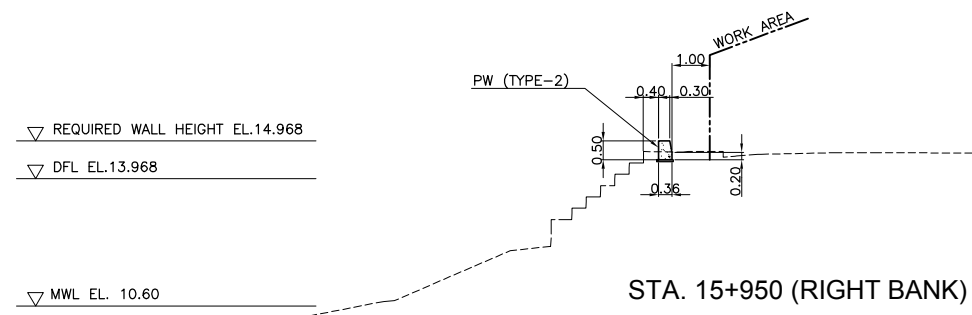
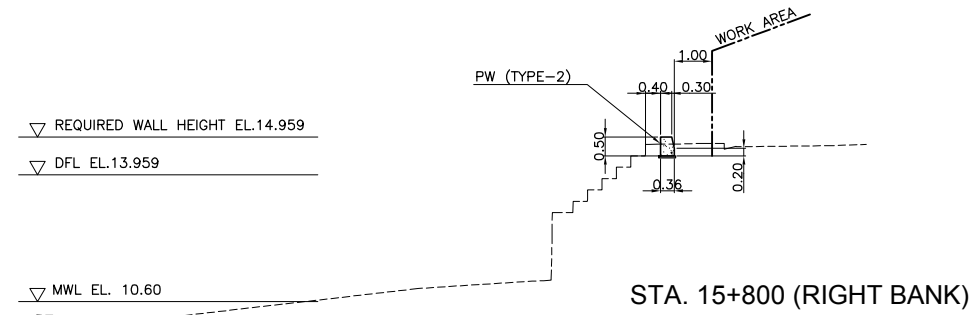
SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY

ROGELIO L. SINGSON
 SECRETARY

PROJECT & LOCATION
 PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA

SHEET CONTENTS
 CROSS SECTION
 STA15+494 - STA15+750
 RIGHT BANK

SHEET NO.
 UP-RS
 CS 34

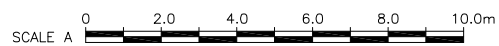
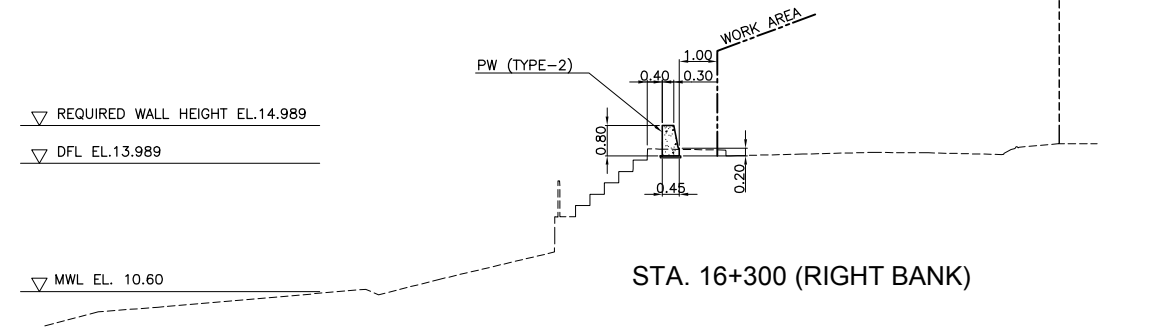
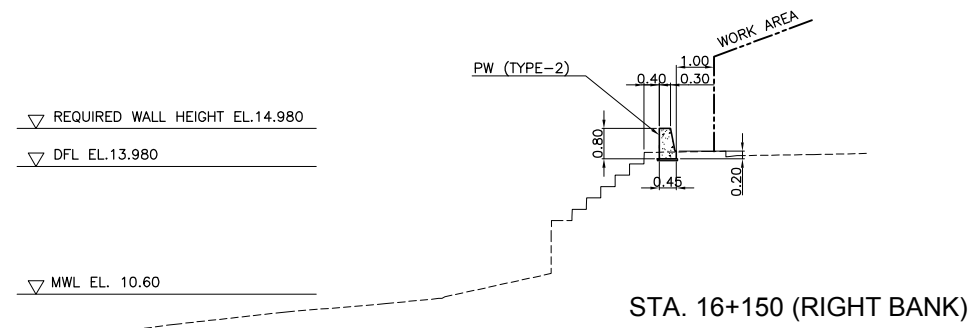
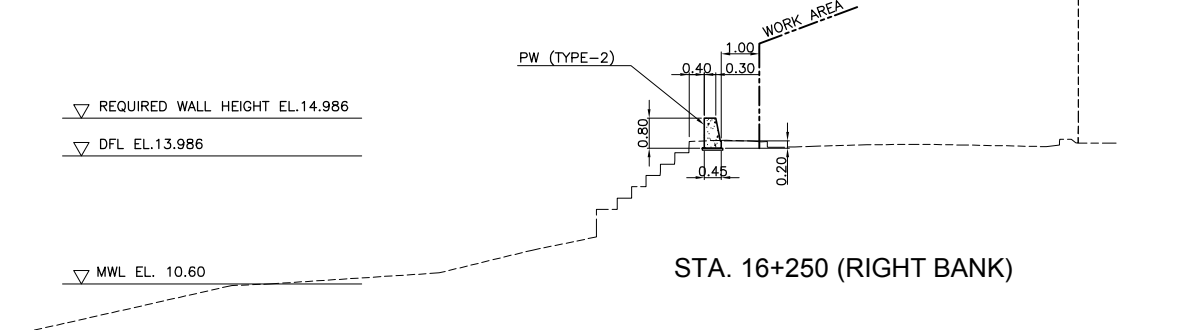
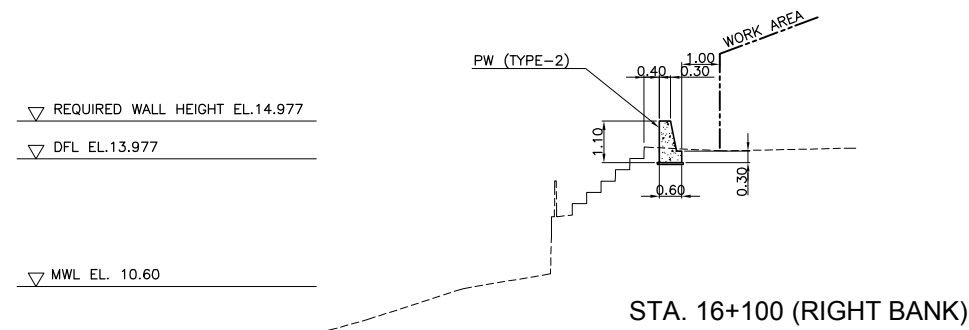
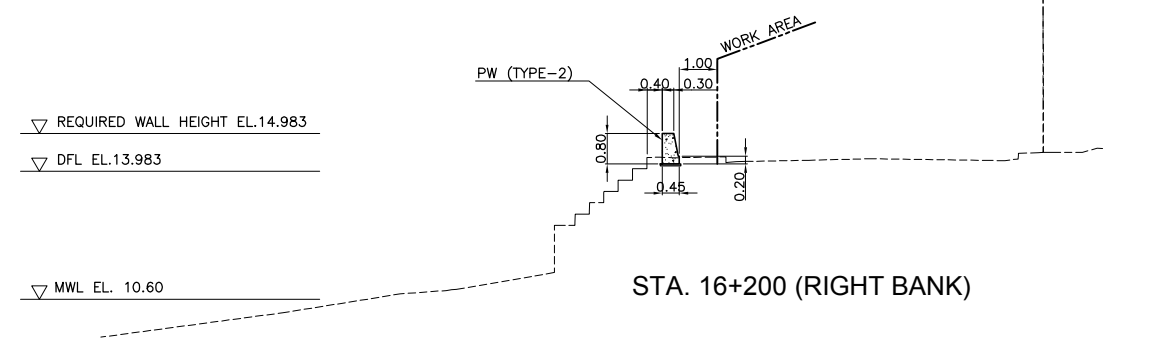
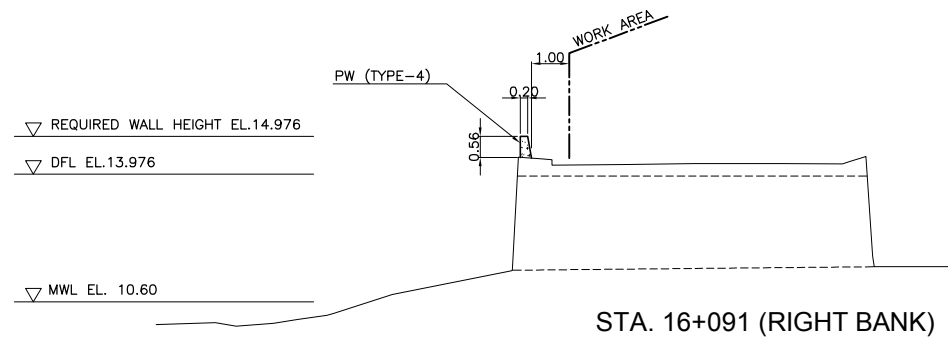


REVISIONS			
NO.	DESCRIPTION	APPROVED	DATE

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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN			REPUBLIC OF THE PHILIPPINES				PROJECT & LOCATION		SHEET CONTENTS		SHEET NO.	
CTI ENGINEERING INTERNATIONAL CO., LTD.	DESIGNED BY:	CHECKED BY:	SUBMITTED BY:	REPUBLIC OF THE PHILIPPINES DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS	REVIEWED BY:	RECOMMENDING APPROVAL :		APPROVED BY:		PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA	CROSS SECTION STA15+800 - STA16+050 RIGHT BANK	
	EIJI MOKI STRUCTURAL ENGINEER I	TOSHIKI KAWAKAMI THE CHECKER	SHUJI KAKU TEAM LEADER		PERFECTO L. ZAPLAN, JR. CHIEF, HYDRAULIC DIVISION, BOD	PATRICK B. GATAN PROJECT DIRECTOR PMO - MFCP	GILBERTO S. REYES DIRECTOR BOD	SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY RAUL C. ASIS UNDERSECRETARY FOR TECHNICAL SERVICES	SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY ROGELIO L. SINGSON SECRETARY			



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NOTE:
PURSUANT TO SECTION 4 OF ANNEX 'A' OF THE REVISED IMPLEMENTING RULES AND REGULATIONS OF R.A. 9184, APPROVAL BY THE AUTHORIZED DPWH OFFICIALS OF DETAILED ENGINEERING SURVEYS AND DESIGN UNDERTAKEN BY CONSULTANTS NEITHER DIMINISHES THE RESPONSIBILITY OF THE LATTER FOR THE TECHNICAL INTEGRITY OF THE SURVEYS AND DESIGN NOR TRANSFER ANY PART OF THAT RESPONSIBILITY TO THE APPROVING OFFICIALS.

SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN

REPUBLIC OF THE PHILIPPINES



DESIGNED BY: EIJI MOKI
STRUCTURAL ENGINEER I

CHECKED BY: TOSHIKI KAWAKAMI
THE CHECKER

SUBMITTED BY: SHUJI KAKU
TEAM LEADER



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS
AND HIGHWAYS

REVIEWED BY: PERFECTO L. ZAPLAN, JR.
CHIEF, HYDRAULIC DIVISION, BOD

RECOMMENDING APPROVAL: PATRICK B. GATAN
PROJECT DIRECTOR
PMO - MFCP

GILBERTO S. REYES
DIRECTOR
BOD

SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY

APPROVED BY: RAUL C. ASIS
UNDERSECRETARY
FOR TECHNICAL SERVICES

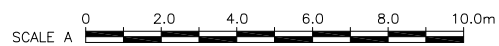
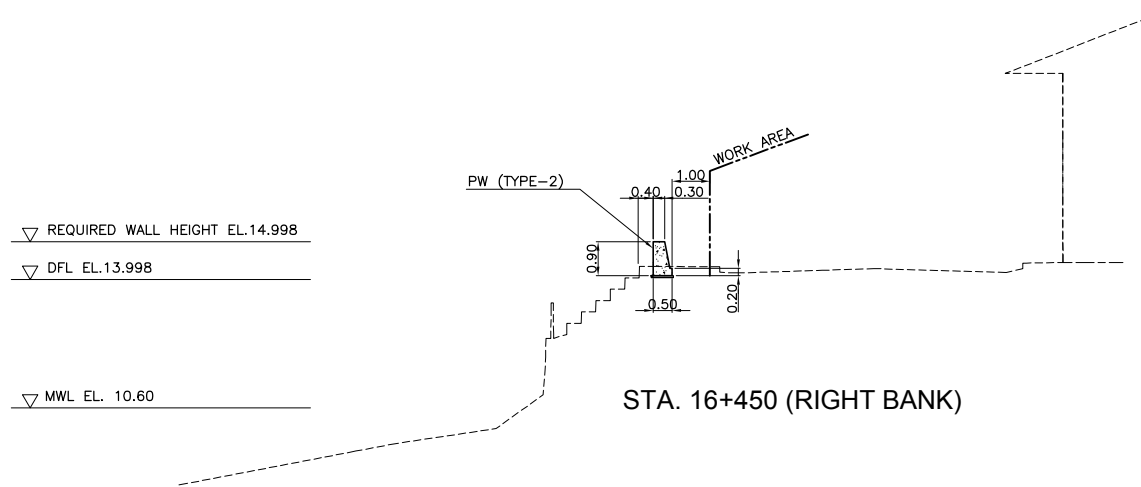
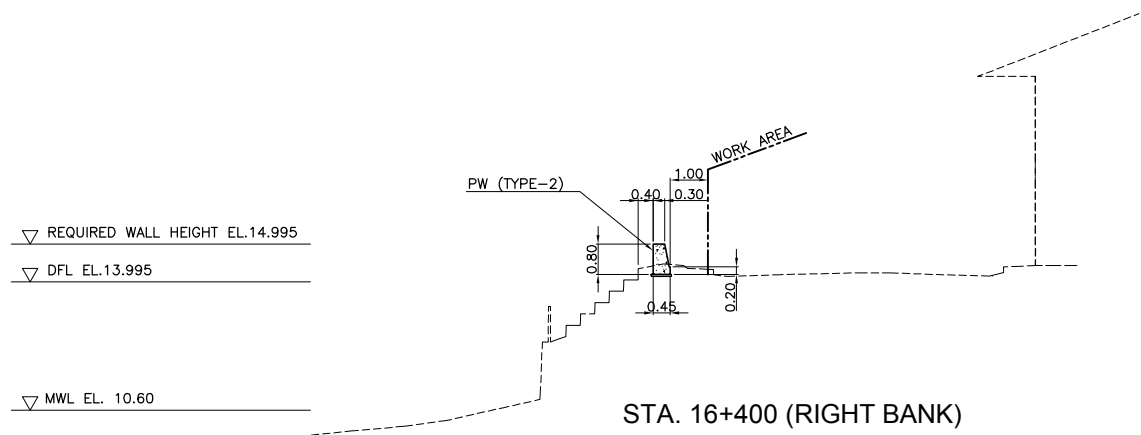
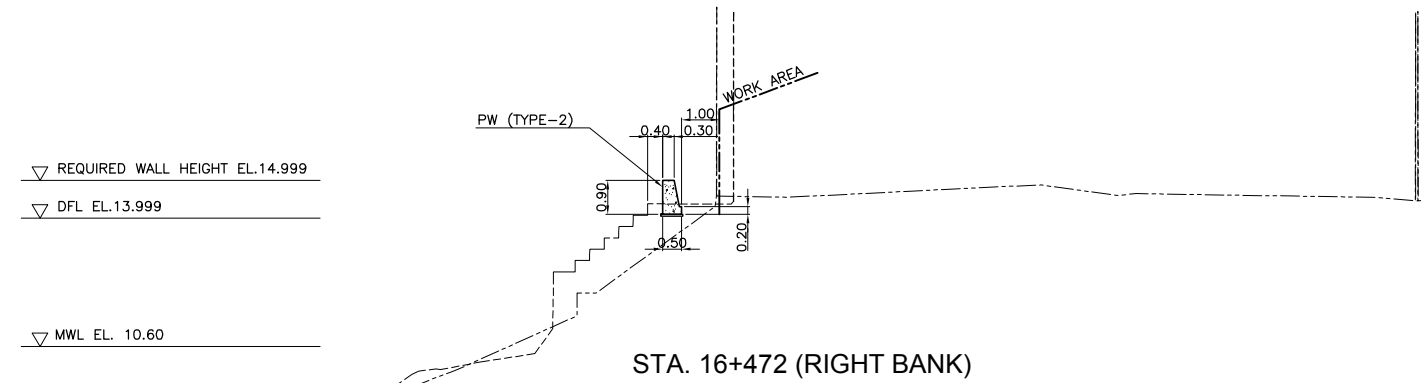
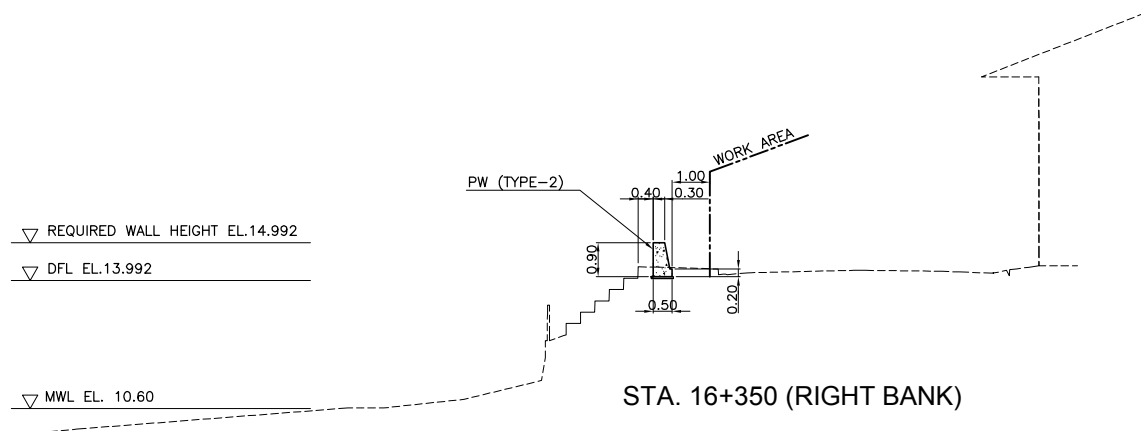
SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY

ROGELIO L. SINGSON
SECRETARY

PROJECT & LOCATION: PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA

SHEET CONTENTS: CROSS SECTION STA16+091 - STA16+300
RIGHT BANK

SHEET NO.: UP-RS
CS 36



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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN

REPUBLIC OF THE PHILIPPINES



DESIGNED BY: EIJI MOKI
STRUCTURAL ENGINEER I

CHECKED BY: TOSHIKI KAWAKAMI
THE CHECKER

SUBMITTED BY: SHUJI KAKU
TEAM LEADER



REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF PUBLIC WORKS
AND HIGHWAYS

REVIEWED BY: PERFECTO L. ZAPLAN, JR.
CHIEF, HYDRAULIC DIVISION, BOD

RECOMMENDING APPROVAL: PATRICK B. GATAN
PROJECT DIRECTOR
PMO - MFCP

GILBERTO S. REYES
DIRECTOR
BOD

SEE COVER SHEET FOR THE SIGNATURE OF THE UNDERSECRETARY

APPROVED BY: RAUL C. ASIS
UNDERSECRETARY
FOR TECHNICAL SERVICES

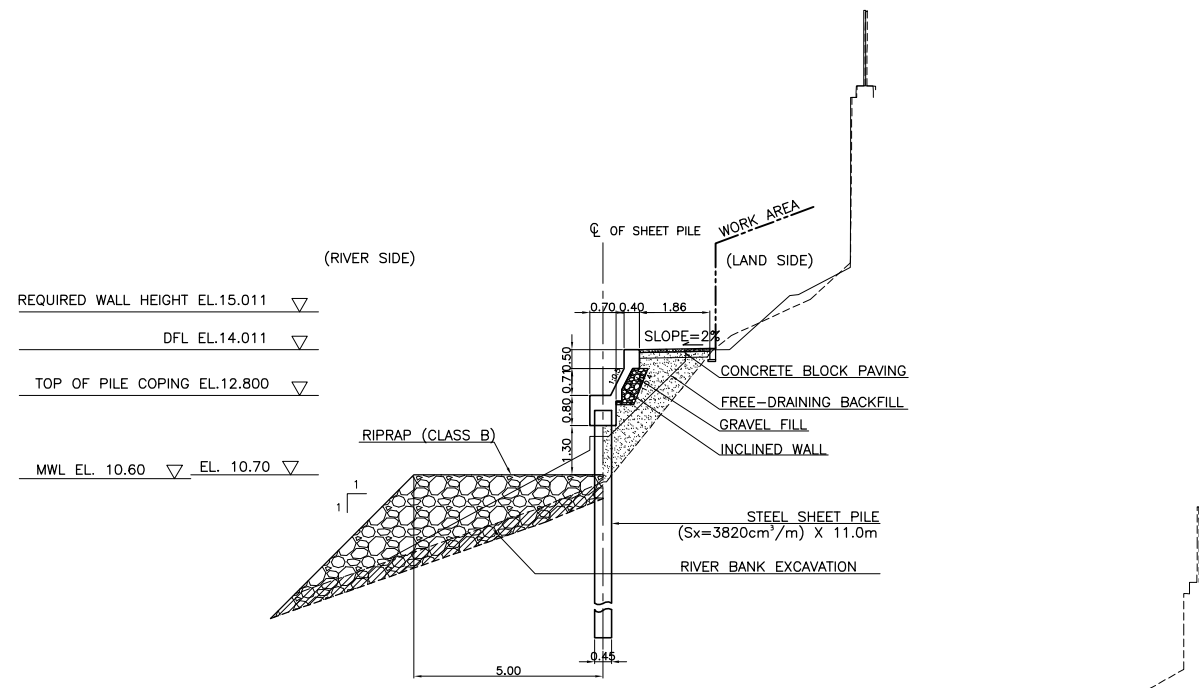
SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY

ROGELIO L. SINGSON
SECRETARY

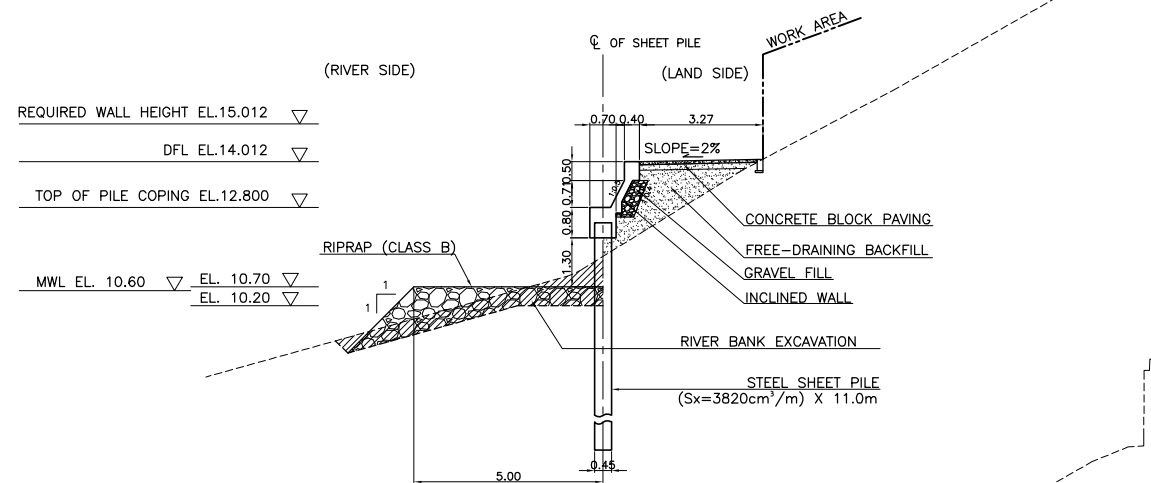
PROJECT & LOCATION
PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA

SHEET CONTENTS
CROSS SECTION
STA16+350 - STA16+472
RIGHT BANK

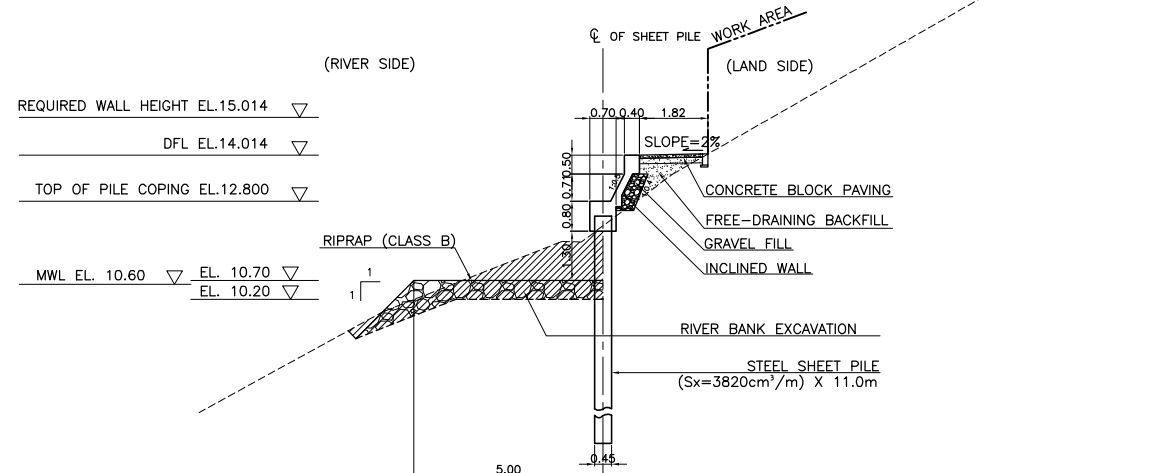
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UP-RS
CS 37



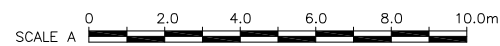
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STA. 16+700 (RIGHT BANK)



STA. 16+724 (RIGHT BANK)

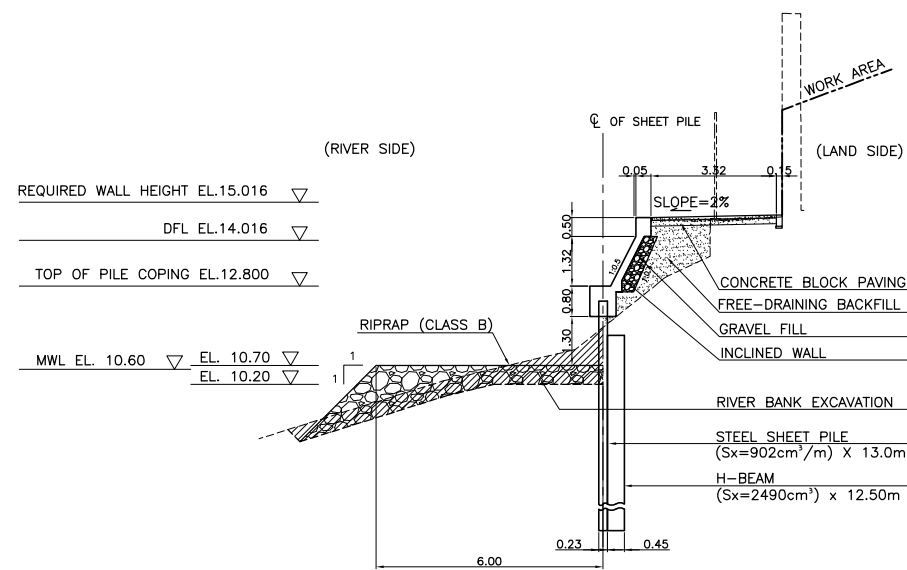


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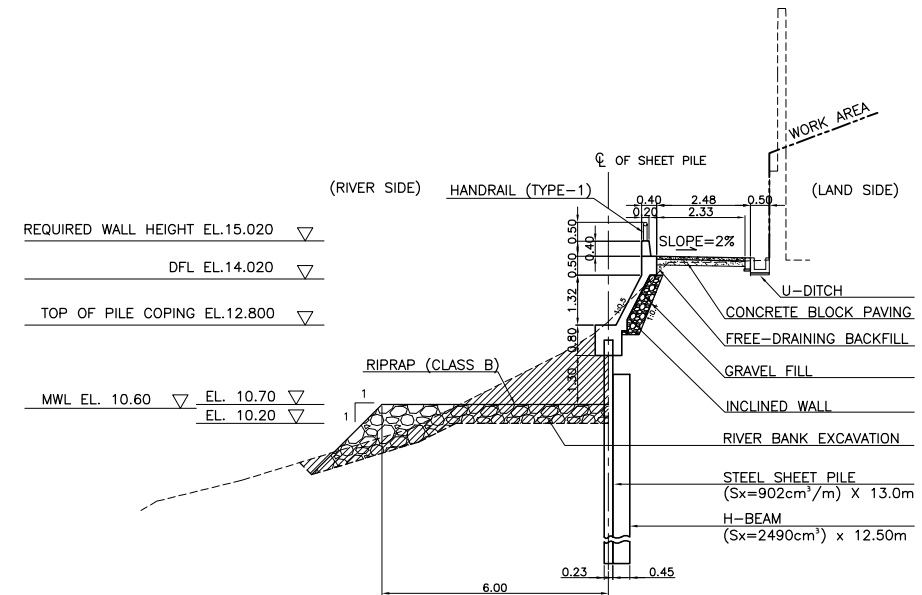
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SHUJI KAKU
TEAM LEADER

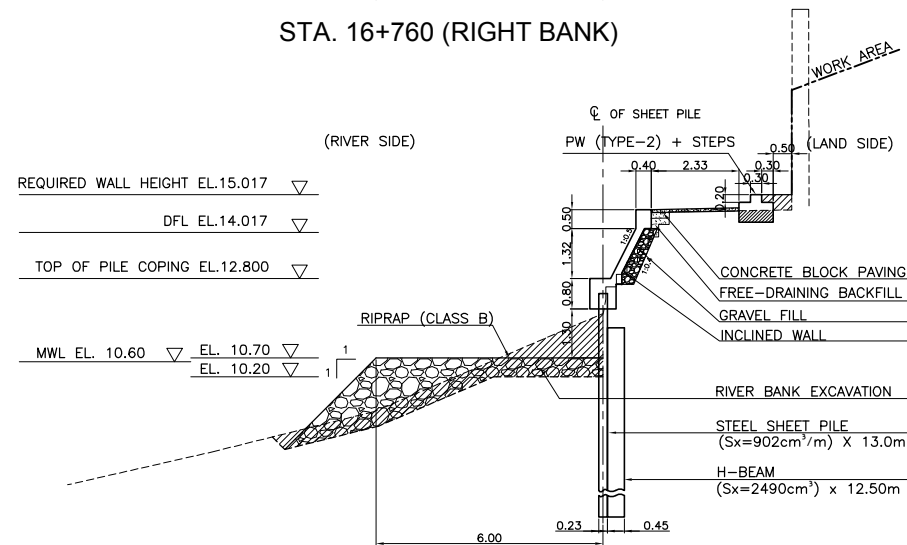
JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN			REPUBLIC OF THE PHILIPPINES				PROJECT & LOCATION		SHEET CONTENTS		SHEET NO.	
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	EIJI MOKI STRUCTURAL ENGINEER I	TOSHIKI KAWAKAMI THE CHECKER			SHUJI KAKU TEAM LEADER	PERFECTO L. ZAPLAN, JR. CHIEF, HYDRAULIC DIVISION, BOD	PATRICK B. GATAN PROJECT DIRECTOR PMO - MFCP	GILBERTO S. REYES DIRECTOR BOD	RAUL C. ASIS UNDERSECRETARY FOR TECHNICAL SERVICES			



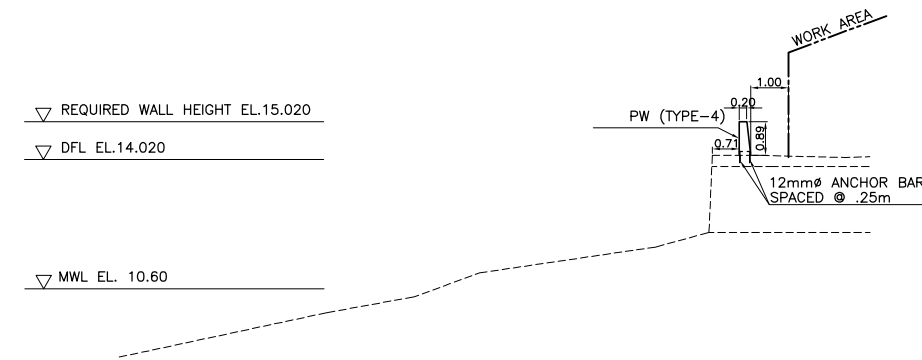
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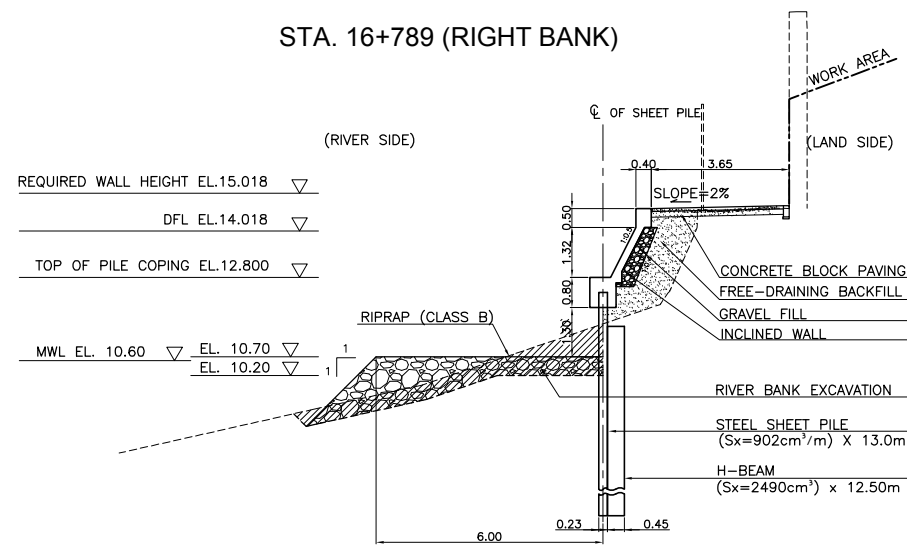
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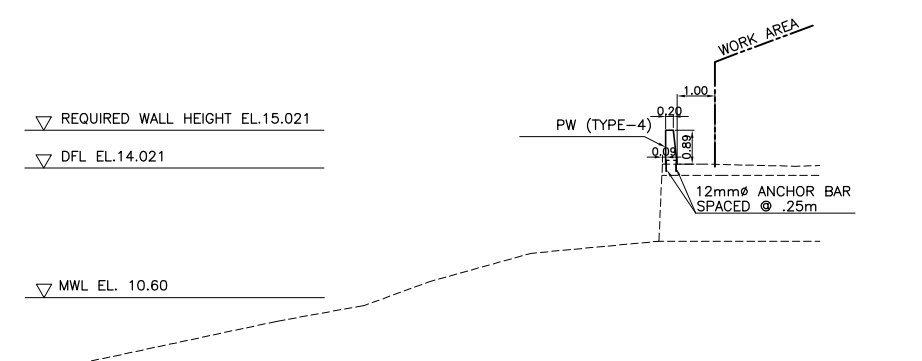
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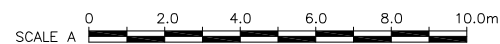
STA. 16+840 (RIGHT BANK)



STA. 16+800 (RIGHT BANK)



STA. 16+843 (RIGHT BANK)



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SHUJI KAKU
TEAM LEADER

JICA CONSULTANT FOR DETAILED ENGINEERING DESIGN



DESIGNED BY: EIJI MOKI
STRUCTURAL ENGINEER I

CHECKED BY: TOSHIKI KAWAKAMI
THE CHECKER

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SEE COVER SHEET FOR THE SIGNATURE AND APPROVAL OF THE SECRETARY

ROGELIO L. SINGSON
SECRETARY

PROJECT & LOCATION

PASIG-MARIKINA RIVER CHANNEL IMPROVEMENT PROJECT (PHASE III), METRO MANILA

SHEET CONTENTS

CROSS SECTION STA16+760 - STA16+843
RIGHT BANK

SHEET NO.

UP-RS
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